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ABSTRACT

A collaborative project involving four states in the Western Interstate Commission for Higher Education region was conducted to develop an on-line student information system allowing students and their advisors access to current information about course and credit tranfer from two- to four-year institutions. Each state (Arizona, California, Colorado, and New Mexico) has a high concentration of minority students in community colleges who transfer at lower rates than other students. Project activities expressly targeted the improvement of the articulation/transfer process. Three states moved toward the successful development of integrated student information systems. In California, a microcomputer system was developed for use in newly funded transfer centers. In Arizona, Maricopa Community College District developed a course equivalency/degree audit program for its digital computers. In Colorado, a different configuration of software and hardware is being utilized to design an integrated comprehensive student information system at Colorado State University. New Mexico was not successful. The study report includes information on pre-grant activities, timelines, costs, and project results for each state. Appendices (the bulk of the document) include a final evaluation report on the project, materials from a project workshop, sample articulation agreements, Arizona's "Handbook for Articulation Task Forces," and materials developed for specific articulation activities. (EJV)

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ED270141

Improving the Articulation/Transfer Process between Two- and Four-Year Institutions

Cover Sheet

Grantee Organization:

Western Interstate Commission
for Higher Education (WICHE)
P.O. Drawer P
Boulder, CO 80302

Grant No.: G008302718

Project Dates:

Starting Date: September 1, 1983
Ending Date: August 31, 1985
Number of months: 24

Project Director:

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Grant Award:

Year 1	$110,452
Year 2	89,711
Total	$200,163

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Project Products:

University of California, Irvine/Articulation System to Stimulate Interinstitutional Student Transfer (UCI/ASSIST) Prospectus
UCI/ASSIST User Manual for Counselors and Prospective Transfer Students
UCI/ASSIST Training Protocol and Technical Documentation Manual
Handbook for Articulation Task Forces, 1984-85
UCI Training Protocol for institutional users of ASSIST
LA Harbor Directory
Guaranteed Student Transfer Program/Contract for Admission to Colorado State University
Memorandum of Agreement: Colorado State University/Community College of Denver

JC 860 275

This project assisted three states in developing computerized student information systems that provide students and their advisors with current information about course transfers to specific programs between participating two-year and four-year institutions in each state. In California the system was developed to run on microcomputers; in Colorado and Arizona the system will run on mainframe computers. In each state the course transfer program is designed to interface with other elements of comprehensive student information systems. The project identified data elements and other articulation components needed for an effective on-line student information system.

Several secondary projects intended to improve a specific weakness in articulation were also completed. A faculty articulation handbook helps faculty assigned to articulation committees function productively and with continuity when committee members change. A three-way contract between a four-year institution, a two-year institution and individual students was developed. The contract guarantees the student admission and junior standing at the four-year institution upon completion of a program defined at entrance to the two-year institution. A directory of potential transfer students was developed as an early identification strategy to be shared between two-year and four-year institutions in one state.

Executive Summary

A. Project Overview:

This project began as a collaborative effort of four states in the WICHE region. Each state has a high concentration of minority students who tend to concentrate in the community college and transfer at lower rates than other students. Project activities expressly targeted the improvement of the articulation/transfer process.

B. Purpose:

The project assisted each state in developing an on-line student information system that allows students and their advisors to obtain current information about how course and credits transfer from two-year to four-year institutions. Secondary projects addressed a specific transfer problem in each state.

C. Background and Origin:

The participating states varied considerably in addressing articulation and transfer. At one end of the continuum Arizona had articulation agreements in place, published an annual statewide course equivalency guide and was considering the development of a common course numbering system. At the other end of the continuum, New Mexico was seeking approval for guidelines to develop articulation agreements.

California had a history of addressing articulation among all sectors of the educational system but information contained in articulation agreements did not reach the students in a timely and useful manner. Colorado was somewhere in the middle in terms of acceptance of transfer by the four-year institutions and in its desire to increase its pool of minority students within the enrollment caps set by the state.

As a regional organization, WICHE had a thirty-year history of working with states to improve their higher education system by serving as a neutral convenor.

D. Project Description and Results:

WICHE convened the state coordinators and technical staff assigned to the project, funneled money to the states to assist in their articulation activities, and helped the states increase the level of interest in articulation and in the project's activities.

Three states moved toward the successful development of integrated student information systems that allow students to access transfer information through computers. In California a microcomputer system (ASSIST) was developed and will be used in the newly funded transfer centers, in selected four-year campuses and campuses of the community college system. In Arizona, Maricopa Community College District developed a course equivalency/degree audit program for its Digital VAC computers as part of an integrated, comprehensive student information system. In Colorado, a different configuration of software and hardware

(IDMS/R and IVM 4381) is being utilized to design an integrated comprehensive student information system at Colorado State University. New Mexico was not successful.

Secondary projects were completed by three states. Arizona piloted and published a Faculty Articulation Handbook designed to provide information on how to implement statewide postsecondary education. California developed a directory which identifies potential transfer students early in their community college career. The directory is designed to increase the rate of transfer of under-represented minority students from community colleges to four-year colleges and universities. It is used as a tool to ensure adequate advising services. Colorado developed a guaranteed student transfer contract between Colorado State University, Community College of Denver and individual students. New Mexico intended to complete articulation agreements in Allied Health, Computer Science, Engineering Technology, Business and Agriculture but the agreements were not completed.

An independent evaluation assessed both the products and the process of this project using the "Best Uses" paradigm developed by FIPSE staff.

Discussion of the process and policy implications fall into two categories. The first category related to the articulation process and the factors that make for successful transfer policy. The second category relates to technological factors that impact the extent to which technological innovations can improve the transfer process.

Project Overview

This project began as a collaborative effort of four states in the WICHE 14-state region. Each participating state has a high concentration of minority students. These students tend to concentrate in the community colleges and transfer at a lower rate than other students (De los Santos, et al 1980; Dearman and Pliski, 1980, Olivas, 1979). Project activities were expressly targeted to improve the articulation/transfer process so students, especially minority students, can more successfully transfer and complete their baccalaureate programs.

The project assisted each state in developing an on-line student information system that allows students and their advisors to obtain current information about how courses and credits transfer from the two-year institutions to articulated programs in the four-year institutions. In California, a microcomputer system (ASSIST) was developed and will be used at five of the thirteen newly funded transfer centers (the other eight transfer centers will install ASSIST in the next fiscal year) as well as in selected campuses of several community colleges districts, all nine campuses of the University of California, and nine campuses of California State University (five this year; four next year). In Arizona, Maricopa Community College District developed a course equivalancy/degree audit program for its Digital Vac computers that will interface with an integrated, comprehensive student information system. In Colorado, a different configuration of software and hardware (IBM 4381 IDMS/R) is being utilized to develop an integrated, comprehensive student information system at Colorado State University. Both Colorado and Arizona will make the degree audit and course equivalency portion of their total system easily accessible to potential transfer students and their advisors. The New Mexico project was not successful.

Secondary projects addressing specific problems in each state were undertaken. The Maricopa Community College District in Arizona piloted and published a Faculty Articulation Handbook for faculty committees at Maricopa and Arizona State University. An articulation specialist campus exchange was instituted between staff of Maricopa and Arizona State University. In California, Los Angeles Harbor College produced a directory of potential transfer students and the group advisory process developed by ACT and the Los Angeles Community College District was expanded for use on other campuses in the district. Colorado State University (CSU) and the Community College of Denver (CCD) developed a three-way (CSU, CCD and individual student) contract that guarantees admission and junior standing at CSU upon completion of a prescribed program at the community college. In New Mexico, articulation agreements in Allied Health, Computer Science, Engineering Technology, Business and Agriculture were begun but not completed.

Purpose

The number of community college students, especially minority students, who transfer to four-year institutions continues to decline. Initially perceived as a problem of getting the right information to students about how and which courses transfer successfully to four-year institutions, this project uncovered greater structural problems that impact the transfer process. The project envisioned a simple, mechanical process of entering existing data from articulation agreements into a computer program that students could then recall and become properly informed about specific courses and their transfer value to the four-year institution of their choice.

However, articulation agreements between institutions at the admission or registrar level are only the preliminary step. Of equal or greater importance are decisions about course acceptance at the program or department level. In some instances data about course transfer contained in articulation agreements do not exist in any format that can be readily computerized. Or it exists with so many caveats that the footnotes of a course matrix become more voluminous and substantive than the matrix itself.

As our work on this project proceeded we learned that at a minimum the footnotes in a useful on-line interactive system should contain information about majors available to students given their community college experience, information about financial aid, a listing of programs that are highly selective because of demand (often called impacted programs), application deadlines and the catalog year under which a student plans to articulate. For successful transfer, students should be provided with a list of available student services, information about how to use these services, and information about the differences in the environment of the four-year institution as contrasted to their community college experience.

While less technically difficult, the secondary activities of this project were important in improving the process of articulation and maintenance of articulation agreements. In every instance, the support of the on-line system required that the secondary project be addressed first. Acceptance of the technological improvement can only be useful when faculty and administration are committed to making the transfer process successful.

Background and Origin

Throughout its thirty-year history, WICHE has worked with the western states to improve their higher education systems. While the most visible of its projects have been the interstate student exchange programs, WICHE has been a catalyst in the region for sponsoring other projects of interstate collaboration. WICHE's role in this project fits into this second category. As described in the project's evaluation (Appendix A), WICHE's role in this project was as convenor, as coordinator of interstate discussion and idea sharing, and as an outside force that helped states leverage their power to impact the systems involved.

The participating states varied considerably regarding their articulation activity. Arizona had articulation agreements between institutions in place, published a yearly statewide course equivalency guide, and was moving toward developing a common course numbering system that would provide uniform course descriptions and course credit information. The State Board of Regents had urged Maricopa Community College District and Arizona State University to improve their coordination; and, as a result, faculty committees by academic discipline at the two-year and four-year levels had been formed to discuss curriculum course and transfer agreements.

At the opposite end of the continuum, the New Mexico Board of Educational Finance was seeking approval for its "Guidelines for Improving Articulation Between Community/Junior and Senior Colleges." This pamphlet had been prepared as the result of a 1983 legislative directive requesting the Board to study the transferability of credit among public institutions of higher education in New Mexico. Because the two-year institutions are largely branches of the four-year systems, articulation agreements did not exist.

By contrast, California had a several-decade history of addressing articulation issues. The 1960 Master Plan had designated the community college as primary entry points into higher education for high school graduates. While articulation agreements between the community colleges, California State University and the University of California existed, an effective way of getting this information to students was not available. Further, minority students who were potential transfer students were not identified early enough to help them plan for successful transfer.

Colorado State University, functioning as a four-year system whose in-state student population was limited by enrollment caps set by the legislature, was also required to increase the number of minority students in attendance. Many of these potential four-year students attended the Community College of Denver, and the Colorado Commission on Higher Education was urging the two systems to develop a guaranteed admission process for transfer students.

Thus, each state had a different set of political realities that impacted student transfer and a different set of obstacles to be addressed before an on-line student information system could be of much assistance to students requesting transfer information.

Project Description

Because each state conducted a unique set of activities abbreviated descriptions by state follow. The reader is asked to see these as a gestalt whose significance will be discussed in the project results. It is likely that were this project to be replicated, even in these same states, the opportunities and corresponding action would vary. As a whole these activities present a catalog of the kind of activity that might be undertaken by other states seeking to improve their articulation process.

WICHE Activity

Upon receiving the FIPSE grant, WICHE hired a project director to replace the director under whose tenure the proposal had been written.

The new director consulted with Miami-Dade administrators since the project had been envisioned as a replication of that system's computerized course equivalency guide. It became almost immediately apparent that no participating state could replicate the data elements on which the Miami-Dade system was built. First, none of the pilot states had a statewide common course numbering system. Second, the Miami-Dade course equivalency program was one of 55 interactive programs in an integrated system. One could not expect one of the 55 programs to have the same impact on improving the quality of student information as was available at Miami-Dade.

Having decided that the Miami-Dade program could not be feasiby replicated, WICHE invited proposals for development of a totally separate computerized Course Equivalency Guide. Most programmer analysts with sufficient expertise in both software systems development and in articulation considered the project an impossible task. In fact, one thing learned by project participants is that it takes three years from the time an institution makes a commitment to develop a system to the time it is ready to implement its plan. One consultant team hired initially to do some of the initial planning conducted a survey of available hardware and software in each state and also tried to determine how much system time was available for an articulation project (Appendix B). This uncovered another major obstacle to the success of the project — no state or set of institutions had similar hardware. Some had small personal computers, some had access to microcomputers only on a limited basis, and some had access only to mainframe computers. At the start of this project no state was able to make a commitment to increase its computer capacity.

In an effort to create a shared experience and common language, the project sponsored its first advisory committee meeting as a follow up activity to the League for Innovation in the Community Colleges and Maricopa Community College District sponsored conference, "Working Conference on Student Information Systems" (Appendix C) in Scottsdale, Arizona on February 7, 1984. At the advisory meeting each state was asked to give a state-of-the-art report, and to share their particular interest in participating in the project. The group agreed to use the University of California, Irvine's system presentation to isolate the data elements needed for an on-line course equivalency system. The states in attendance (New Mexico did not attend) agreed to review the data elements through a telephone conference call in April, 1984.

Following the meeting, letters of agreement for each state were drafted and signed (Appendix D).

A second meeting of the Advisory Committee was convened on July 16-17, 1984 in Santa Fe, New Mexico (Appendix E). The location for this meeting was chosen in order to ensure New Mexico's participation and to provide the task forces being formed in New Mexico with articulation experts. The state coordinators from Colorado, California, and Arizona were presenters at a WICHE-sponsored conference for the task forces convened by the New Mexico Board for Educational Finance. Each presenter described a specific strategy for developing articulation agreements between two-year and four-year institutions. Both the state coordinators and the systems analysts assigned to the project from each state participated in this meeting.

Following the New Mexico meeting, WICHE arranged for the University of California at Irvine to send each state a computer floppy disc containing the ASSIST program. Programmers from each state except New Mexico also visited Irvine to examine the system in development. In a conference call in April 1984 staff from each state discussed the data elements of the system and reviewed the Prospectus draft for ASSIST.

The third meeting of the advisory committee was held in Breckenridge, Colorado on August 23, 1985. This final meeting was used as an evaluation meeting and each state reported on the progress made toward reaching the primary and secondary goals. Plans for institutionalizing their activity beyond the project were discussed by each state.

WICHE published the ASSIST prospectus and ASSIST User Manual for distribution both within and outside of California. In addition, WICHE staff was available to attend key meetings in each state when visibility of the regional organization helped the states advance their plan for action. Among those meetings, have been the California Articulation Conference, The League for Innovation/Maricopa Colleges co-sponsored conferences on instructional and administrative uses of computer technology, Colorado Counselors Meetings, the Colorado Transfer Oversight Committee Meetings and the AACJC and AAHE annual meetings. WICHE has also obtained a dissemination grant and major presentation proposals have been accepted for the AAHE, AACJC and AACRAO, national meetings in Spring, 1986. Other dissemination activities include presentation at CUNY (City University of New York) sponsored Articulation Conference, the 1985 National Hispanic University Convocation, the 1985 WICHE Commission Meeting, and the 1985 League for Innovation Conference.

Timelines

The project envisioned taking a course equivalence program already in existence (Miami-Dade's) and using it to enter articulation data specific to each state into existing computers. This on-line data would be used immediately to advise students about transfer. Analysis conducted in the first several months of the project revealed that the Florida model could not be effectively used by other states. Further, it was necessary to know the hardware configuration available to each state before any compatible programs could be determined. As the project unfolded, complexities involving institutional politics at all levels forced a realization that the timeline for implementation had been seriously underestimated. The project achieved remarkable results in its two-year period but the results were not those anticipated in the proposal. The results anticipated in the proposal will, in fact, occur in three states; that is, a student interactive information system explaining how courses transfer to programs within institutions will be available in the next year in California, and within three years in Arizona and Colorado as described in the minutes of the Breckenridge meeting (Appendix F). The groundwork for acceptance of the system has been completed and this project's activity has the support of the postsecondary community.

Timelines for the secondary activities were more realistic and with the exception of New Mexico all secondary projects were accomplished within the two year time frame.

Cost

It was also clear early in the project that while the grant involved a significant amount of money, it was insufficient to develop a marketable software package that other institutions could use with little modification. Project staff and the state coordinators spent a significant amount of time at the first advisory committee meeting deciding how the money could be leveraged to enhance articulation work in a meaningful and useful way and at the same time accomplish the goals of the project. The results discussed below and the parsimonious use of project funds attest to the creative and knowledgeable leadership of the state coordinators in meeting the goals.

In addition to the money available to WICHE for the implementation of the project, the grant provided money to be used by each of the states to implement project acitivities. Each state was budgeted an amount that allowed for computer implementation as well as for implementation of the secondary projects. WICHE developed letters of agreement with each state for distributing the project funds to the states.

WICHE Staff

In addition to Martha Romero, Project Director and Katy Wogan, Administrative Secretary, WICHE has utilized outside experts that included Richard Schinoff, Dean of Student Services, Miami-Dade Community College; John Roth, Director of Educational Services Division, American College Testing Program; Don Bergman and Jo Waite, Systems Analysts, University of Colorado, as well as experts from each of the participating states.

ARIZONA

Pre-Grant Activity

Arizona published an annual statewide course equivalency guide. The Arizona Board of Regents and the State Board of Directors of Community Colleges had created the Academic Program Articulation Steering Committee (at the Vice Presidential level) and faculty representing specific disciplines were involved in updating articulation agreements.

Grant Activity

Arizona used project funds to establish an articulation specialist position in the Maricopa District Vice Chancellor's office. Through the efforts of the articulation specialist a faculty articulation handbook (Appendix G) was prepared, piloted, revised and is in current use. An articulation specialist staff exchange between Maricopa and Arizona State University was instituted and these specialists are drafting a conversion chart for changing course prefix from two- to three-letter prefix (an alternative to common course numbering). Cross representation articulation committees by discipline of two-year and four-year faculty are in place and functioning and a process for regularly updating course equivalency guides has been instituted.

The Maricopa programmers served as this project's liaison to the League for Innovation in the Community College Task Force on Computerized Student Information Systems. They also evaluated and provided technical assistance to ASSIST. Using the data elements isolated through ASSIST they have contracted with Digital Corporation and Information Associates to develop an integrated Student Information System for Maricopa and Arizona State University.

Timelines

The faculty handbook was developed in the first year of the project and is currently in use. The contract between Digital Corporation, Information Associates and Maricopa signed this spring calls for a five-year collaborative venture in which both hardware and software specialists from the two corporations will spend the next three years on site at Maricopa to implement an integrated student information system. Some elements of the integrated system are already operational and the course equivalency program should be implemented by Spring semester, 1986 (Appendix H).

Cost

Maricopa received $11,500 to support its activities in the articulation project. One of the Maricopa programmers was also employed to provide technical assistance to the University of California, Irvine.

Arizona Staff

Alfredo de los Santos, Vice Chancellor for Education Development in the Maricopa District was the state coordinator. Also involved were Irene Wright, Articulation Specialist; James DeVere, Programming Manager; and Ron Bleed, Director of Computer Services all from Maricopa district. Albert Karnig, Assistant Vice President for Academic Affairs, Arizona State University attended the Scottsdale meeting and was involved locally with the project.

CALIFORNIA

Pre-Grant Activity

California has a long history of involvement in articulation. The California Articulation Conference is held yearly and includes high school, community college, and four-year college faculty, administrators, counselors and admissions officers. The California Postsecondary Education Commission was discussing the pros and cons of a common course numbering system at the time the grant award was made. The Director of Admissions and his programming staff at the University of California, Irvine (UCI) had begun work on a degree audit check that with the help and support of the project eventually became ASSIST (Articulation System to Stimulate Interinstitutional Student Transfer).

Grant Activity

California activity concentrated on the development of ASSIST, an on-line microcomputer-supported transfer course planning system. A prospectus and user manual were produced and published with grant funds. The Prospectus Manual (Appendix I) distributed to institutions considering the use of ASSIST on their campus. The User Manual (Appendix J) was distributed at training sessions for staff on user campuses prior to installation of the system. Seven hundred fifty copies of the prospectus and three hundred seventy five copies of the User Manual were provided to UCI.

Staff at UCI developed the system using the NCES taxonomy of education subject numbers. This taxonomy enables users to access information about courses by course number as well as by subject matter. This taxonomy has been useful to the other states in conceptualizing their discription list.

The UCI staff spent considerable time demonstrating the evolving system to the other pilot states and to California higher education adminstrators, counselors and admission officers. In the last year of the project, the California project staff participated in the implementation of the thirteen transfer centers on most two- and four-year campuses that were specially funded by the California legislature. ASSIST is a cornerstone of the transfer activity promoted by the centers.

Los Angeles Harbor College developed a directory of potential transfer students for distribution to the community college and four-year institution advising staff. Los Angeles Harbor has served as the primary site for cooperation with UCI in the development of ASSIST during the project period. The system at Harbor college should be operational in the 1985-86 academic year. The Los Angeles Community College District worked with project staff to expand use of the ASSET (Assessment of Skills for Successful Entry and Transfer), a group advising instrument, (Appendix K) developed by the American College Testing Program. The group advising process is used at entry to the community college to indentify potential transfer students and help students map their programs for transfer to a four-year school.

Timelines

ASSIST is currently being installed in five of the thirteen transfer centers, all nine University of California campuses, five of the California State University campuses and several campuses of the Los Angeles community college district. Pending further funding, the system is scheduled for installation in FY 1987 at the remaining eight transfer centers and four additional campuses of the California State system. Three additional community college districts that do not house a specially funded transfer center are currently negotiating with UCI for installation of the system in their districts. Considerable interest in the system has been shown by private colleges in California and several are currently negotiating for installation of the system on their campuses.

The directory of potential transfer students is scheduled to be distributed in December 1985.

Cost

Total cost of the California project from FIPSE funds was $18,500. University of California, Irvine received $15,500 for development of the system, the prospectus and the user manual (WICHE published the printed material at additional cost). Los Angeles Harbor received $3,000 in FIPSE funds to support its early identification activities. Total cost of the California project was $18,500.

California Staff

Dorothy Knoell, Postsecondary Education Administrator, California Postsecondary Education Commission, served as State Coordinator. Others involved included James Dunning, Director of Admissions, UCI; Richard Everman, Director of Student Information Systems, UCI; Eric Taggart, Computer Programmer, UCI; Julie Richwine, Senior Administrative Analyst, UCI; Del Anderson, Dean of Students Los Angeles Harbor Community College; and Glenna Scheer, Program Development Specialist, Los Angeles Community College District.

COLORADO

Pre-Grant Activity

Prior to the grant award, Colorado State University (CSU) and the Community College of Denver (CCD) had discussed possible ways of helping minority students transfer from CCD to CSU. The Colorado Commission on Higher Education had formed an oversight articulation committee with representatives from each higher education institution. The committee's focus was on getting the four-year institutions to address the issues of community college transfer students.

Grant Activity

As participants in the grant Colorado State University (CSU) staff evaluated ASSIST and used it to identify the data elements needed for their own interactive, integrated student information system. CSU has entered into a three-year contract with Systems and Computer Technology for development of their mainframe system. The data base will contain information about articulation between the public Colorado community colleges and CSU. Discussion has begun about how community colleges might have access to the data base for use on the community college campuses.

As a secondary project in Colorado, staff developed a three way contract (Appendix L) to be used between CSU, CCD and individual students. The memorandum of understanding (Appendix M) between the two schools guarantees admission and junior standing in 31 programs at CSU upon completion of a prescribed program in the community college. Programs with special requirements (impacted programs) simply list their additional requirements as part of the contract. Any minority student initially denied admission to CSU is automatically referred to the Community College of Denver and given information about the contract. The community college and CSU share information about the students and CSU begins tracking the students under contract to preserve their enrollment space within the legislated cap on in-state enrollment.

Timelines

The contract is now in operation and eight students are piloting its use in 1984-85. It is anticipated that substantially more students will take advantage of the contract opportunity in 85-86. Presentations to high school and community college advisors are planned for the next year as a way of informing more potential users of the contract's availability. Also the minority recruitment officer at CSU will spend one day each week on the community college campuses from November 1985 through March 1986 to recruit more students.

The mainframe system contracts are for the next three years. A fully operationalized system is expected by 1988.

Cost

Total cost of the Colorado project was $14,500. CSU received $11,000 to evaluate and pilot test ASSIST and develop the contract. An additional $3,500 was distributed to CSU to establish an "outreach" office to promote use of the three-way contract.

Colorado Staff

Initially the coordinator of the Colorado project was Leonard Overturf, Director of Admission, CSU. Upon his retirement, Mary Ontiveros, the new Director, took over as coordinator. Leonard Overturf stayed on the advisory committee throughout the project. Also involved were Allan Eddy, Director of

System and Administrative Services, CSU; David Groth, Vice President for Administration, Community College of Denver; and Cathy Joseph, Chair, Colorado Articulation Oversight Committee.

NEW MEXICO

Pre-Grant Activity

In 1983 the New Mexico legislature passed a resolution asking the Board of Educational Finance and the public higher education institutions to study the transferability of courses among institutions.

Grant Activity

In August 1984, the Board of Educational Finance approved the Guidelines for Improving Articulation between Community/Junior Colleges and Senior Colleges. Task forces were established to develop articulation agreements in Allied Health, Computer Science, Engineering and Engineering Technology, Business, and Agriculture.

Although meetings of the task forces were supported by the grant, the task forces were not convened by the Board for Educational Finance staff nor informed of the grant's support for their activity until late June, 1984. On June 28, a letter went to the task force members inviting them to a meeting which WICHE sponsored (Appendix N).

On July 17, 1984 the task force members were invited to a WICHE sponsored conference in Santa Fe, New Mexico. The morning agenda included presentations by the state coordinators of the other three states. The project director invited task force members to submit requests for travel and support money through the Board for Educational Finance State Coordinator.

The afternoon agenda included individual meetings of each task force. Each task force was charged with developing a strategy for action in drafting an articulation agreement in their discipline. The task forces then reported back to the whole group regarding their plans. Plans were specific and the project appeared to be underway. However, no money was ever made available to the task forces, little formal follow-up from Board staff to the task forces occurred, and the Board returned the money that was not expended for the task forces.

The New Mexico Association of Collegiate Registrars and Admissions Officers did publish a draft of an articulation matrix for general education courses. The project provided only encouragement to the group by inviting representatives to the conference in Santa Fe. Active and formal involvement of the group with the project could have helped the project succeed in New Mexico.

Computer services to the Board for Educational Finance are provided by the University of New Mexico in Albuquerque. Computer staff time was purchased with grant funds to test ASSIST. The programmers recommended against it use in New Mexico (Appendix O).

The project was not successful in New Mexico.

Timelines

New timelines were established each time a new coordinator was appointed. Following the July 1984 meeting in Santa Fe, the latest timeline was adjusted. At the end of the grant, no articulation agreements had been finalized and no computer system was actualized.

Cost

$9,000 were forwarded to New Mexico for use with the task forces and to test ASSIST. $4,040.15 was expended in salaries and materials to test ASSIST. The New Mexico Board of Educational Finance has returned the balance, $4,959.85. This money was intended to defray expenses incurred by the task forces.

New Mexico Staff

During the grant period, five different Board for Educational Finance staff were assigned to the project. Three people held the leadership position of executive secretary to the Board. Vacancies occurred at the presidential level of every four-year institution (most community colleges in New Mexico are branch campuses of the four-year institutions). The only stability in the system from an articulation viewpoint was at the registrar and admissions level and these positions do not carry enough power to create significant change within the systems.

Project Results

The project results differed in each state as might be expected given their unique environments, resources and limitations.

Arizona

Maricopa district in Arizona used the project to leverage its efforts in developing an integrated student information system. As a result, they have initiated a voice command phone-in registration for continuing students and developed a degree audit system that includes a computerized course equivalency guide, a curriculum management system interfacing the data bases of each of the seven colleges in the district, and an individualized method of assessing student progress toward their degree. Their data entry will be 95 percent on-line driven and at the level closest to the user. (Thus, registration is performed by the student and one person at the district level is responsible for entering articulation information developed at the campus level.) Data for the degree audit system will be pilot tested during the Spring semester, 1986.

The faculty articulation manual was revised and is currently in use by faculty committees at Maricopa and Arizona State University (Appendix G).

An administrative staff exchange has been instituted between the two-year and four-year system to help the communication and understanding of each system by all staff.

Permanent articulation task forces have been established in the state and leadership of each task force in the first several years has been shared by Maricopa and Arizona State University.

A course number alignment process has been initiated (Appendix P) and Maricopa is also taking a lead role in this process.

California

The California project had many entry points and each provided different perspectives and ultimately different outcomes. The project was coordinated by staff of the California Commission on Postsecondary Education (CPEC). Initial meetings with Los Angeles District staff and the University of California, Irvine (UCI) staff were arranged by CPEC staff. As the project progressed the WICHE director worked directly with staff of UCI and Los Angeles Harbor College.

UCI expanded the development of a program originally conceived as a simple degree audit to an integrated student transfer planning system on microcomputer. Consultants from the other participating states tested, evaluated, and suggested modifications to the system. The prospectus for ASSIST (Appendix I) and the User Manual (Appendix J) were published by WICHE with grant funds. Development of the training protocol and Technical Documentation Manual (Appendix Q) was also supported by the project.

Over the two-year period, ASSIST grew from a small project involving one four-year and one two-year campus to become a significant and vital element of the newly legislated California Transfer Centers scheduled to open in 1985-86. Staff at UCI identify their participation in the WICHE project as an important factor in keeping the pressure on them to develop an improved system, to identify further possibilities for use of the system, and ultimately to establish the kind of visibility that resulted in ASSIST's being included as a necessary function funded by the Transfer Center legislation.

The early identification activity in California was less consistently defined and addressed. Several transformations occurred about how the early identification activity could be most effectively addressed. Initially the project expected to expand use of the ASSET group advising system. However, at the end of the project's first year, a very severe drop in enrollments in the California colleges, and in the LA district in particular, reduced revenues and forced curtailment of staff in counseling and additional student services. As a result there were fewer staff to provide the requested student services. California staff then proposed that ASSIST be piloted at Los Angeles Harbor Community College (LAH) and that the project attempt to evaluate how use of the system supported students early in their community college career and helped them prepare for transfer. When time lines slipped and it became clear the system would not be ready to pilot during the life of the project, the California coordinator suggested another strategy to increase the number of ethnic minority students; namely, that we support the publication of a directory of new students at LAH planning to transfer and that LAH staff disseminate the directory to four-year institutions interested in recruiting students (Appendix R). This activity was completed. Also, currently in progress is the effort to prepare LAH articulation agreements with California State/Long Beach and California State/Dominguez Hills for data entry into ASSIST.

Colorado

In Colorado, the project focused on activity at the four-year institutions. The state coordinator was the Director of Admissions at Colorado State University (CSU) and while this position changed during the life of the project, both the former and the current director stayed actively involved. The Community College of Denver (CCD) decentralized from a single system to three independent community colleges during the life of the project and representation on the advisory group reflected this instability. Except as recipients of activity generated at CSU, the community college was not involved in the project.

CSU has made a commitment to develop its own student information advising system and, like Maricopa, has entered into contract with commercial vendors. Colorado technical staff tested ASSIST, helped identify common data elements to use in conceptualizing their own system, and did some user analysis that ultimately helped all states (e.g. students expect to use the system most between 7:00 p.m. and midnight). (See minutes of the Breckenridge meeting, Appendix F.)

CSU negotiated a memorandum of understanding with CCD (Auraria) that allows for students to contract for transfer between CCD and CSU (Appendix L). Individual students sign a contract at the community college that guarantees them admission and junior standing in one of thirty-one participating programs at CSU upon completion of a prescribed program at the community college. Minority (and other students) initially denied admission at CSU are advised about the contract and directed to apply for entry through the community college. The community college advisors also promote the contract with their students. High school counselors have been briefed about the contractual process. Special visitation days are scheduled for contract students to familiarize them with the four-year campus and the services available to students.

Limited use by students was made of the contract (eight in the first year), since its availability was not generally known, especially by admissions and high school counselors. However, the number of students under contract is expected to rise dramatically in the next several years as more advisors are informed of the contract. Unexpended funds made available at the end of the project were used to support the establishment of a CSU outreach office at the community college campus from November to March, the most intense recruitment and transfer application period. This stragtegy will also help to make the contact's availability more visible and useful.

New Mexico

There were five different state coordinators assigned to this two-year project. None of them considered the implementation of the project a top priority, nor were they able to mobilize and coordinate the activity of those groups and institutional professionals who were interested in the project's activity.

Despite action taken by the legislature asking the Board of Educational Finance (BEF) to study the transfer process among the New Mexico institutions, and the establishment of statewide task forces in the five targeted disciplines, Board staff proved unable to provide the necessary leadership, to maximize the use of project funds to support the activity of the task forces or to convert the resistive four-year institutions who oppose transfer in any but an individual student-by-student basis. Although interest in articulation does exist at registrar and admissions office levels, the New Mexico American Association of Collegiate Registrars and Admissions Officers (NMAACRAO) was not involved effectively by project staff.

New Mexico's approach to the on-line student information system was much the same. Staff chose to concentrate on evaluating ASSIST by justifying why it could not be used in New Mexico rather than using it as a jump off point for enhancing their own articulation process. The programmers in New Mexico were able and competent but their participation in the project was severely limited. They were not permitted to visit the UCI campus for a demonstration of ASSIST even when project funds were made available. In the end, even if a system could have been available, no data exist that can be entered with any assurance that they are accurate and reflect the reality of an articulation transfer process since no articulation agreements were completed.

WICHE staff considered dropping New Mexico from the project at the end of the first year. A decision was made to keep them in the project after the meeting in Santa Fe. The task force members were eager to proceed and attendance and participation at the workshop/meeting suggested that they were strong enough to effect some change. In an effort to keep ownership of the project within New Mexico, the task forces were told there was money available to support their work and travel funds were available to bring them together. To access the funds they were instructed to submit their requests to the BEF. The state coordinator chose not to distribute those funds and the BEF is being asked to return the money earmarked for this work.

Summary and Results

Arizona

The Maricopa community college system, already an excellent and productive system when it was selected to participate in this process, had plans to undertake the activity initiated by the grant. The district therefore used the grant to increase staff commitment to its activity, to initiate some activity (e.g. hiring the articulation specialist) that accelerated the process, and to use the regional organization as an outside force to increase the visibility of its activity. The district used the interaction with other states to refine its outcome definitions and to evaluate their process against that of the other states in order to seek the most effective way of proceeding. Administration, technical, and student services staff were all involved at appropriate times in activities generated by the project.

California

The project, as a whole, learned some important things from interacting with UCI. The California activity helped us clearly identify the lead time required to operationalize a system. As a result of the project we can now confidently say that it requires at least three years from an institution's initial commitment to develop an interactive student information system to the time of its implementation and availability for student use.

Second, to operationalize a stand-alone system like ASSIST, institutions must be willing to decentralize the Student Information System capacity and staffing of the data processing system must remain flexible. To do this requires that each institution have ownership for its own process and that advising staff see and promote widespread use of the system as an auxiliary function that supports but does not displace their advising roles.

Finally, coordination of the transfer function between coordinating board staff, district staff, and four-year sector staff in California resulted in an effective coalition that brought about important change regarding transfer as demonstrated in the special state funding for the transfer centers.

Colorado

In Colorado, the activity focused on the participating four-year institution. The state coordinator was staff of the four-year institution. In addition, the community college sector was going through a period of considerable change. As was demonstrated in New Mexico (see below), a certain amount of institutional stability is required in order to initiate internal change in a specific function. During the project time frame, the Community College of Denver system became three independent community colleges. The community college representative to the advisory council, an administrator in the district office, ultimately had no jurisdiction with any of the newly formed campuses. Only one campus, the Community College of Denver (Auraria) remained involved with the project.

While the state coordinator changed as a result of a retirement, both the former Director of Admissions at CSU and the current director stayed actively involved with the project. CSU's interest in improving the transfer function was very useful in the project's progress in Colorado and in assisting the other states in the development of their systems. The contractual agreement developed by CSU has generated a great deal of interest in the field since it is a project that is easily replicable. News releases about project activities have always generated many requests for information about this contract.

New Mexico

The project in New Mexico was not successful, but several things about this type of effort were learned from New Mexico. First, a stable environment, particularly at the governance level, is needed before institutions can collaborate with each other. Second, problems of ownership, if unresolved, can abort a collaborative effort because individuals can choose to critique a process or product as a way to avoid dealing with the political issues involved. Third, it may be more difficult to achieve articulation between two-year and four-year institutions when the two-year institutions function as branches of the four-year institutions. Since the schools are considered part of one system, they are powerless to mobilize outside forces that can work for change.

Discussion

Policy implications that surfaced as we worked with and analyzed this project fell into two categories. The first category relates to the articulation process and the factors that make for successful transfer policy. The second category relates to the technological factors that impact the extent to which any technological improvement can support the effectiveness of the transfer process.

Articulation Process

The development of written articulation agreements for programs and general education is a necessary first step in developing an effective transfer process. In addition, print medium course equivalency guides bring to the foreground all the political issues regarding transfer that exist at all levels of the institutions. Work can then proceed to resolve the issues involved.

Any efforts to improve articulation must involve all levels of the educational system. Maricopa, and to some extent California, have been successful because articulation is addressed formally at all levels of the administration of both two-year and four-year institutions and faculty are involved in the development and maintenance of articulation agreements. Each of these systems also has a position for an articulation specialist in its administrative structure. As can be expected, this kind of priority is given to articulation in systems where community colleges are recognized as significant feeder systems to the four-year institution. Community college districts in Arizona supply 40-50 percent of the total university student population. In education more than 70 percent of students are transfers from community colleges; and in engineering 40-50 percent. In California community colleges are the entry points to the postsecondary education pipeline for the majority of students.

The four-year sector participants in this project learned that as articulation with other institutions is developed, a climate is created that is more supportive for improving articulation between departments and between different campuses of the same institutions.

Technological Factors

In the category of technological innovation, the project advanced our understanding significantly. First, no system is transferable intact to another state. Not only are machine configurations and software availability different but the kind of information that is contained in articulation agreements differs. Regardless of the data, footnotes to the basic points in the agreement become as important to the advising process as the course matrix itself (e.g. grades that transfer, elective credit, applicability to specific programs, exam requirements, etc).

Secondly, regardless of the system developed, parallel activity to preparing for the implementation of the system must include activity that prepares staff for a major change in the advising process. From the outset, advisors must realize that their roles will change because a large part of their task as information brokers will be taken over by machines. The advising process will refocus on identifying student needs, talents, goals, and on helping students made decisions leading to success. The other realization must be that there is a change from print to non-print media. The technical staff involved in the project were always cognizant of this and used every opportunity to remind us that people must be considered before machines. Further, they reminded us that acceptance of any system would come only if the human factor was considered and a clear distinction was made between machines as information conveyors and people as problem solvers.

Mention has already been made that a successful on-line information system must allow for data entry at the level closest to the user. This can be done if safeguards are built into the system in both retrieval and update mode so that students, faculty, and administrators can make on-line updates as appropriate.

Planning time required to develop and implement an interactive student information system is at least three years. It is important to allow time to try different program configurations since from failure sometimes come the most creative solutions. For example, in response to a setback in the development of ASSIST, staff "discovered" the NCES education subject matter taxonomy that now enables the system to retrieve information not only by course title or number but by subject matter also.

While the advising system interfaces with administrative computer functions, it is different and requires some different data elements. However, administrative programs must be in place before the course equivalency and degree audit programs can be integrated into a total student information system.

Finally, some commentary must be made about how a project such as this was enhanced (or hindered) by the coordination of an agency outside any given postsecondary system. These comments are compiled from responses to the question posed to participants at the last advisory committee meeting. In serving as convenor, WICHE's participation changed the dialogue so that similar problems across state lines could be addressed in a more neutral setting. Support was provided for cooperative problem-solving of the different sectors, e.g. community colleges and four-year institutions. Further, the sense of being part of a larger project provided energy to each participant to get going faster and sooner than might otherwise have occurred. The number of academic people who were involved in the decisions affecting their programs was increased as a result of the increased visibility of each project. In California, the project was credited with helping CPEC raise the transfer issue to higher priority for state-level attention. In Arizona, WICHE's involvement nudged the institutions to coordinate course prefix alignment (mandated by the legislature) with other articulation activities. In Colorado, formal relationships between Community College of Denver staff and Colorado State University minority recruiting staff were firmly established as a result of their joint involvement in a "larger" project. Perhaps the greatest benefit was that each participant felt their horizons had been broadened and their individual products were improved as a result of the feedback each got from the others.

APPENDICES

IMPROVING THE ARTICULATION-TRANSFER FUNCTION BETWEEN TWO- AND FOUR-YEAR INSTITUTIONS

A PROJECT SPONSORED BY THE
FUND FOR THE IMPROVEMENT OF POSTSECONDARY EDUCATION

AND DIRECTED BY THE
WESTERN INTERSTATE COMMISSION FOR HIGHER EDUCATION

FINAL EVALUATION REPORT

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I. INTRODUCTION

The project that is the subject of this report, "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions," was a two-year effort funded by the Fund for the Improvement of Postsecondary Education (FIPSE) to the Western Interstate Commission for Higher Education (WICHE). Participating in the project were a variety of institutions and agencies in four states: Arizona, California, Colorado and New Mexico. (A listing of these institutions and agencies is provided in the Appendix.)

The Articulation-Transfer Project, as it will be referred to in this report, was initiated in October of 1983 and concluded in August of 1985. As stated in the original proposal, the project had four goals:

1. To assist each state in developing a cost-effective demonstration of successful articulation-transfer.
2. To develop, for student and advisor use, a comprehensive articulation information system for each of the four states. The system will specify transfer admissions requirements, transfer courses that are required and/or electives for each of the four-year institutions' academic majors, and will list addresses of transfer counselors and coordinators.
3. To advocate the establishment of articulation/transfer committee to oversee the continuation and manintenance of the articulation process in each state (Kintzer, 1976).
4. To assess the model projects and disseminate to other institutions and states the conclusions resulting from them.[1]

These goals were to be achieved by two types of undertakings:

1. The development and implementation of "a computerized course, credit, and transfer equivalence guide which students and counselors can use for individual guidance."
2. The implementation of "secondary projects" unique to each participating state that were "derived from its particular approach to improving articulation/transfer."

The purpose of this report is to evaluate, from a vantage point external to the project, the extent to which the project met its goals and objectives, as outlined above. Other considerations that are considered in conjunction with this assessment include the manner in which the project approached its tasks, its pattern of coordination, communication and adjustment to circumstances, its impact on participants, its impact on the problems associated with articulation and transfer in participating states, and its prospects for continuation.

The balance of the report consists of five sections. Section II outlines the General Approach that was taken to the evaluation and discusses the Methods that were used in conducting it. Section III presents the evaluator's assessment of Project Accomplishments, Section IV considers Project Processes, and Section V discusses Project Continuation. The report concludes with Section VI containing the evaluator's Comments, Conclusions and Recommendations.

II. GENERAL EVALUATION APPROACH AND EVALUATION METHODS

General Approach

As will become almost immediately apparent to the reader of this report, the evaluator's approach to assessing the Articulation-Transfer Project was predominantly qualitative rather than quantitative. This approach was taken for two reasons. First, because of the systemic nature of the project, most of its activities and anticipated outcomes did not lend themselves to quantitative measures. Second, the fluid nature of the project (which will be discussed in more detail later) rendered what quantitative measures were attempted essentially meaningless.

In the final analysis, the evaluation presented here is much more a process evaluation than a product evaluation, although this should not be interpreted as meaning that the project produced no products. Rather, and simply stated, it means that the project's processes were in the evaluator's estimation the most interesting, intriguing and potentially useful of the project's outcomes. The evaluation is also, to use the paradigms offered by Stephen Ehrmann, former FIPSE Project Officer, more along the lines of a "best uses" rather than a "uniform impact" assessment.[2]

The uniform impact paradigm, in Dr. Ehrmann's formulation, assumes that "innovation ... is intended to impact each of its beneficiaries the same way." From this assumption, it follows that the purpose of evaluation is to measure success in order to inform others concerning the relative merits of *copying* the innovation. The best uses view of evaluation, on the other hand, "concentrate[s] on how it [innovation] influences each subject *differently*." Such evaluation "focuses on the diversity of powerful uses and influences as the measure of a good idea." Others, "each stimulated by something about the original innovation, will often develop programs that are very different from the original."

As the Articulation-Transfer Project was originally conceived, both of these approaches to evaluation might well have been appropriate. The common computerized guide could have been viewed as having a potentially uniform impact, and the unique secondary projects could have been examined in a best uses context. As the project evolved, however, its computerization component became increasingly diverse, to the degree that vitually no comparisons could be made across states. Accordingly, it appeared appropriate to consider this component from the best uses perspective as well.

Methods

As the Articulation-Tranfer Project evolved, it looked progressively like four projects with a central communications and coordination center (WICHE) rather than a single undertaking. Accordingly, it is perhaps best to describe the general methodology of the evaluation as a series of case studies clustered around a common process core.

Specific methods included document reviews, periodic telephone conversations with the Project Director and with representatives of the four participating states, and attendance at the three project-wide meetings: one in Scottsdale, Arizona on February 7-8, 1984; one in Santa Fe, New Mexico on July 16, 1984; and one in Breckenridge, Colorado on August 23, 1985. Site visits, which might have rounded out the information gleaned from the above sources, were initially precluded due to resource constraints and subsequently deemed by the Project Director to be insufficiently cost-effective given the evaluator's ability to confer with participants during the project-wide meetings and the relatively little that was observable at the sites. However, the evaluator did visit one of the California sites while there on other business.

Limitations

Although there is no way of judging with any certainty, the evaluator suspects that some of the information in this report may be limited, or at least constrained, by the inability to conduct site visits. Further, to the extent that qualitative evaluations with small sample sizes are viewed as being less conclusive than larger quantitative studies, the findings persented here may be considered by some to be quite tentative. Nonetheless, the evaluator is reasonably confident that the evaluation activities that were undertaken yielded a fair, accurate and reasonably detailed portrait of the project *per se*. Whether these findings are generalizable to other settings is a judgment perhaps best left to the individual reader. However, that reader should note that at least in the aggregate, the findings are representative of a sample of four exceedingly diverse states.

III. ASSESSMENT OF PROJECT PRODUCTS

Primary Product

As noted earlier, the primary and common product to be developed by the Articulation-Transfer Project was a computerized course, credit, and transfer equivalency guide. The project planned to accomplish this task by using its resources to contract with a data processing consultant, who would develop such a guide in consultation with and for use by the participating states.

Soon after the project was initiated, however, the magnitude and complexity of the proposed task became acutely apparent to all involved, and well before the first project year had come to a close it had been quite legitimately abandoned. The roadblock that had been initially apparent, namely the inability to identify a suitable consultant who was willing to work within available funds, was shown over time to be perhaps the least of the problems facing such an undertaking.

As one of the hallmarks of this project was the ability to refocus energy with a minimum of residual frustration, a topic that will be discussed in more detail in Section III, it came as no surprise that an alternative strategy was quite readily identified. However, this strategy *clearly* illuminated the two major problems with the task as originally structured, and although it was quite legitimately not abandoned, it also required substantial refocusing.

The project's initially refocused strategy was to use a computerized articulation system already well into development in one of the participating states (California) as a consultant/model for the balance of that state and for the other participating states as well. As finally refocused, the task involved the use of California's ASSIST (Articulation System to Stimulate Interinstitutional Student Transfer) as a consultant, but not as a model, at least in all but the most general sense of the word.

In the evaluator's opinion, this ongoing refocusing of the project's activities provided a valuable service to the higher education community by identifying two key problems with the original task and simultaneously pointing the way to a modified and highly useful task. The first of the problems, which might have been predicted had project designers been experienced data processing personnel, is that it is totally unrealistic to consider developing and implementing a computerized statewide articulation system within two years. The second, which is substantially less likely to have been identified by anyone prior to a "field trial," is that *computerized articulation systems are not transportable*. The obvious reason for this is hardware and software incompatibility, but that is the less meaningful reason. More meaningful from a higher education perspective are the major and clearly unsurmountable differences in articulation contexts across states.

Consider, as examples, California and New Mexico. California has 29 four-year institutions in two separate systems and 106 locally administered community colleges in at best a loosely defined network, all of which have had a highly sophisticated web of articulation agreements in place for decades. New Mexico, by way of contrast, has four-year institutions in one system, its community colleges are branches of the four-year institutions, and until it was well into the second year of the Articulation-Transfer Project, it had only one inter-institutional articulation agreement in place. While these two examples may well represent the extremes of the range, they do serve to illustrate the complexities of inter-state articulation efforts.

Complexities and contextual differences nonwithstanding, the Articulation-Transfer Project's focus on computerization, and its support of ASSIST from both a developmental and a consulting perspective, were viewed by all participants as being extremely useful. No other state has adopted ASSIST, and no other state is likey to adopt or probably even to adapt it. However, all have learned from it.

Maricopa Community Colleges in Arizona, heavily involved in their own computerization effort, used ASSIST to identify data elements for its own system. The state also reported benefitting substantially from the dialogue on the subject engendered and facilitated by the project.

In California, the state of origination, ASSIST was incorporated into legislation creating transfer centers and will be in use on a pilot basis at locations throughout the state during the 1985-86 academic year. The primary benefits to California from its involvement in this aspect of the project were the project's unrelenting and successful pressure to finalize the system's development, the visibility and credibility generated by involvement in a regional, WICHE-sponsored undertaking, and the resultant raising of transfer to a higher level of statewide priority

Colorado State University used its evaluation of ASSIST to decide whether to develop a standalone system or to integrate articulation information into its existing mainframe configuration. Elements from ASSIST and the timeline its development suggested were integrated into the University's Request for Proposal for its own system. Finally, involvement in the project helped the state to focus on problems and alternative solutions vis-a-vis computerized articulation.

For reasons to be discussed in more detail in Section IV, New Mexico was only peripherally involved in this project component and has derived no benefit from it to date.

Secondary Products

Unique secondary products to be developed by the project participants were as follows:

- Arizona - a "manual to orient faculty to transfer/articulation ... to enable them to quickly and conveniently review what past committees have done .. [and to] increase the pace at which agreements could be created and maintained."
- California - a "more effective entry diagnostic procedure to identify potential transfer students so they can receive counseling."
- Colorado - a "guaranteed transfer system"
- New Mexico - an updated articulation plan in engineering and "additional articulation plans ... for five other areas - Allied Health, Computer Science, Business, Agriculture, and Engineering Technology."

The evaluator is less familiar with the processes involved in developing these products than with the products themselves, and in fact has only self-(participant-) reported information concerning their implementation and utilization. However, three general conclusions appear justified by the information at hand:

1. With the exception of New Mexico, all of the participants developed the products as specified. New Mexico developed and obtained state approval for a document outlining guidelines for improving articulation and prepared draft articulation agreements

in agriculture, business, engineering and allied health.*

2. From the evaluator's review and participants' testimony, all of the products appear to have been designed to meet the identified needs. While most do not appear to the evaluator to have as much "pizzaz" as they might to "sell" a new or innovative approach, all appear reasonably serviceable.

3. With the exception of California's ACCESS, all of the products have had too limited a trial for purposes of implementation or impact evaluation. Evaluation data on ACCESS were not readily available to the evaluator, and the effort was not made to pursue them because California's Articulation-Transfer Project effort was focused on ASSIST.

On a more specific level, the following information provided by the participants may prove helpful in assessing progress toward the states' goals.

Arizona developed the faculty manual in 1983-84, pilot-tested it with eight faculy task forces during 1984-85, evaluated it on the basis of faculty feedback, and then revised it for use during academic year 1985-86. To the evaluator, the revisions seem relatively minor, indicating a high degree of success in developing the first edition. However, the revisions also indicate considerable sensitivity to the processes by which articulation will succeed, including an awareness that exceptionally mundane procedural omissions can have a major negative impact, if not necessarily on outcomes, then certainly on willing cooperation.

California developed ACCESS outside the Articulation-Transfer Project and has been using it in the Los Angeles Community College District since the Articulation-Transfer Project began. However, the fact that the Articulation-Transfer Project helped to make transfer a more visible issue in California may assist in spreading ACCESS, or at least the concepts underlying the project, to a broader constituency.

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* The California product, called ACCESS (Action for Community College Enhancement of Student Success), was actually developed by a private contractor and the Los Angeles Community District. Articulation-Transfer Project funds were used primarily to leverage the development and expansion of ASSIST.

Colorado developed the guaranteed transfer system between the Community College of Denver system and the University of Colorado in response to an environment in which the legislature had set enrollment caps for in-state students at each of the major four-year institutions. During a partial year of pilot implementation in 1984-85, four students signed transfer contracts; three of these have indicated an intent to enroll in the University this fall. Meanwhile, personal contacts, a transfer visitation day and over 2,000 brochures have been used to advertise the system. The University is " ... confident that the paucity of applicants reflects on the 'newness' of the project and not on its potential or value."[3]

New Mexico, as noted earlier, represents a special and somewhat problematic case in the project, for reasons that will be discussed in some depth in Section IV. For the purposes of this discussion, suffice it to say that articulation/transfer has been and continues to be substantially undeveloped in New Mexico. Because the community colleges are branches of the four-year schools, articulation has less to address in New Mexico than in multi-system states; "ownership" of articulation has not been marshalled yet, so relatively little progress was made toward the Articulation-Transfer Project's goals. In addition, turf-guarding precluded acceptance of many potential agreements.

IV. ASSESSMENT OF PROJECT PROCESSES

Viewing the Articulation-Transfer Project as "a series of case studies clustered around a common process core," as was suggested earlier, it is possible to discern two levels or sets of project processes: those that were project-wide, emanating in large part from WICHE and in a few instances from the evaluator; and those that were participant-specific, taking place in each of the individual states. As was noted in the preceding section of this report, the evaluator is less than totally familiar with the participant-specific processes, as only a relatively limited amount of time was spent with the state representatives and no site visits were conducted. There are, however, a few insights that can be shared. With respect to project-wide processes, on the other hand, quite substantial information can be shared.

Project-Wide Processes

From the perspective of the evaluator, the project as a process was a tremendous and categorical success. From the conceptual to the almost trivial, essentially nothing was left to chance; persistence and determination characterized the effort from the very outset.

An enormous amount of the credit for this process success must go to the project director, who was so overwhelmingly success-oriented (but not goal-oriented, which is a significant distinction here) that *something* was going to happen, no matter what. In an evaluation designed to inform the higher education community, however, reference to individual attributes is not particularly useful. Thus although generalizing from a sample of one, even over several observations in a variety of situations, is at best risky and at worst utterly foolhardy, it seems appropriate at least to make the attempt.

The following characteristics of the project's processes were observed repeatedly by the evaluator and appear clearly to have facilitated its functioning. To the extent that these processes can be emulated by other projects, it is probable that they will enhance their activities as well.

- Organization. Every meeting, and even a large number of telephone calls, had carefully structured agendas; expectations were communicated well in advance and all participants were presumed to come prepared. Organizational details (e.g., meeting room, room reservations) were handled so expertly by the Director's support staff that to the evaluator's knowledge, logistics never interfered with the business at hand. Interestingly, all of this was accomplished without the deluge of paper that typically accompanies the higher education enterprise. For effective, well-timed and relatively unintrusive use of the telephone, the project could well serve as a model.

- Flexibility. If ever there was a project in which the director "never said die," this was that project. Throughout, the attitude was, "All right, that won't work - what will?" By being success- rather than goal-oriented, the director salvaged the project from not one but several unprofitable directions, shaping something that made an impact rather than mechanically pursuing empty pre-determined goals.

- Persistence. More than one project participant conceded that what he/she accomplished was accomplished in some substantial measure because of unrelenting pressure from the Project Director. Flexibility worked in many contexts, but equally important was a "can do - *will* do" attitude. Once committed to a viable direction, participants were expected actively to pursue it; those who did not were reminded on a regular basis of their obligation.

- Communication. A great deal of effort was put into ongoing communication and shared learning among the participants, not only during the three project-wide meetings, but also among sub-groups (e.g., computer programmers; evaluator and one state's representatives) throughout the two years. Conference calls were used to considerable effect. All participants agreed that the ongoing communication facilitated by the project was one of its most valuable contributions.

- Humanistic Creativity. By selecting resort locations at ideal times of year yet at eminently reasonable rates for the three project-wide meetings, the project director not only ensured good to excellent attendance but also engendered a more positive feeling about the project than might ordinarily have been the case given all the problems that were encountered. The fact that one of only three complaints about the project during a final evaluation session was

"NOT INVITED [to Colorado] DURING SKI SEASON!!" quite adequately tells the story.

State Processes

Few insights were gleaned insofar as participant's specific processes are concerned, but those that were may be of interest. Taken together, they represent what might be termed the "best uses - worst uses" paradigm of innovation.

First, there is the case of California, which essentially used the project for leverage. Initially, it leveraged the final development and documentation of a computerized articulation system by bringing project funds and project pressure to bear. Then, it leveraged that system (along with the whole issue of transfer) into a statewide priority for funding by bringing the prestige of a multi-state project and the reputation of its sponsors to bear. In the evaluator's opinion, this is an inordinately creative "best use" of exceedingly limited resources.

New Mexico, on the other hand, may represent a compelling example of "worst uses." By its own admission, New Mexico was unable to make much of anything out of the project. One twofold reason, described earlier, was the educational system context. The other, more a process, was continual and persistent turnover at the higher adminstrative echelons, both at the state level and at the institutional level. In two years, four people in the Board of Educational Finance were assigned to the project; during roughly the same time period, all six presidencies of four-year institutions changed hands. Because no consistent constitutency or leadership could be marshalled, New Mexico spent most of the project critiquing the ASSIST model rather than using it as a springboard at the state level and battling over turf at the local level.

New Mexico derived "some valuable learnings" from the project, however.[4] The New Mexico experience clearly illuminated the need for "a stable political environment both at the governance level and in the top leadership of the institutions." Stability existed "at the registrar level, but not above," and the registrar level is insufficient to tackle ownership issues.

V. PROJECT CONTINUATION

To one degree or another, and in various formats, the Articulation-Transfer Project's activities will continue into the foreseeable future. It should be noted in this regard however, that the project's primary role was a facilitator rather than as a "creator of new things." It provided ideas for computerization and staff for an already-conceived faculty articulation process in Arizona, helped California leverage development and political processes, and pointed New Mexico toward a more focused consideration of articulation problems and contexts. Only in Colorado was the project a more direct contributor than a facilitator; had project funding not been available, the guaranteed transfer system might not have come into being.

From another perspective, however, much of what came into being in the four participating states' articulation processes would certainly have been *less* - less structured, less supported, less well-thought-through, less understanding - had the project not existed. The project functioned as a significant catalyst for improvement and knowledge. Thus when the activities it nurtured continue without its help, as they would have commenced without its help, they will continue with an enhanced perspective, position and spirit.

Insofar as the total Project is concerned, it will continue, however briefly, with a FIPSE dissemination grant. This grant will enable project processes and products to be presented at five national conferences.

All of the work commenced in Arizona these past two years will continue and be expanded; part of it has already been institutionalized at the state level. Arizona also plans to disseminate its computerized articulation work at the national level.

California's plans for continuation, discussed previously, are undoubtedly the most dramatic. An effort that was still developmental during the 1984-85 academic year expects to see 23 iterations in place during 1985-86, although representatives concede that their use will be negligible until the ASSIST database is expanded. ASSIST has already been presented to a wide variety of audiences, including the State Department of Finance, all University of California campuses (in a training program) and several independent institutions. A number of national presentations are scheduled for the current year.

Colorado will be focusing on the marketing of its guaranteed transfer system in order to extend its benefits to more students. The Colorado Commission on Higher Education has expressed a desire to mandate transfer contracts statewide, but no firm plans are in place. Higher education representatives are studying the proposal to determine whether it would facilitate or impede transfer. The state's computerized articulation system is under development.

In New Mexico, an effort will be made to "try to refocus and address persistence issues."[5] Institutions need to be made to realize that helping students complete their programs is in the public interest.

VI. COMMENTS, CONCLUSIONS AND RECOMMENDATIONS

As fluid, changeable and apparently amorphous as this project was, intense evaluator frustration was a periodic fact of life. Evaluation strategies were designed and subsequently discarded as inapplicable at least four times during the course of the project - each considered in good faith between evaluator and director, each subsequently deemed useless. At times, the evaluator quite frankly didn't know what was going on, and the desire to be responsive to the director's success orientation was somewhat painfully admixed with the realization that from the evaluator's perspective, there was no clear idea of what success was today, let alone what it might look like tomorrow.

In the final analysis, however, it is the evaluator's judgement that this fluidity, however frustrating, paid substantial dividends. Had success been defined as a mirror reflection of original goals and objectives, the "primary" half of the project would have failed. Instead, the project took a careful look at reality and made the "best use" it could of it. Success was re-defined at an occasionally dizzying rate, but in the end, there was success. Even the project's overt failure, New Mexico, learned from the exercise while failing to produce the prescribed things; certainly a better understanding and definition of the problem constitutes an important component of educational improvement.

It seems to the evaluator that the project has several important stories to tell, and it is the telling of these stories that constitutes the evaluator's recommendations. First, the project needs to share its experience with fluidity and flexibility. What factors suggest a change in approach? Are there "early warning" signals? How is fluidity accomplished without losing motivation and momentum, or courting failure? How can success be effectively yet reasonably re-defined?

Second, the project should talk about processes. What processes work in a constantly fluid environment? What can be said about the reasons they work? How do processes relate to context? Are there lessons for all about "best uses" in the project's four case studies? About the best uses paradigm?

And finally, the project needs to talk about products. Not so much about the products *per se*, although this will also be helpful, but about the transportability of products. What kinds of products are transportable and what are not? What kinds of components can be transported? How is the transportation best facilitated? How can false transportation attempts and the "critique model" be avoided? In short, how can we make the best use of things developed by others?

And then the project will have told its long, arduous and, finally, successful story.

REFERENCES

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2. Ehrmann, Stephen C. "Two Views of Innovation, Two Views of Evaluation: The 'Best Uses' Paradigm." Paper presented at the Joint Conference of the Evaluation Network and the Evaluation Research Society. San Francisco: October 13, 1984.

3. Personal correspondence from Mary Ontiveros, Director of Admissions at Colorado State University. August 20, 1985.

4. WICHE. Articulation Project Advisory Committee Meeting: Minutes. Breckenridge, Colorado: August 23, 1985.

5. Ibid.

APPENDIX A

INSTITUTIONS PARTICIPATING IN THE ARTICULATION-TRANSFER PROJECT

ARIZONA

Arizona State University

Maricopa Community College District
    Glendale Community College
    Maricopa Technical Community College
    Mesa Community College
    Phoenix College
    Rio Salado Community College
    Scottsdale Community College
    South Mountain Community College

CALIFORNIA

California Postsecondary Education Commission

University of California at Irvine

Los Angeles Community College District
    Los Angeles Harbor College

COLORADO

Colorado State University

Community College of Denver System
    Community College of Denver/Auraria Campus
    Community College of Denver/North Campus
    Community College of Denver/Red Rocks Campus

NEW MEXICO

New Mexico Board of Educational Finance

Eastern New Mexico University at Clovis
Eastern New Mexico University at Portales
Eastern New Mexico University at Roswell
New Mexico Highlands University
New Mexico Institute of Mining and Technology
New Mexico State University
University of New Mexico at Albuquerque
University of New Mexico at Gallup
University of New Mexico at Los Alamos
University of New Mexico at Valencia
Western New Mexico University

NEW MEXICO (continued)

College of Santa Fe
College of South West
Luna Technical-Vocational Institute
New Mexico Junior College
New Mexico Military Institute
New Mexico State University at Alamogordo
New Mexico State University at Grants
Northern New Mexico Community College
San Juan College
Technical Vocational Institute
University of Albuquerque

WICHE
Western Interstate Commission for Higher
P.O. Drawer P Boulder, Colorado 80302
Telephone (303) 497-0200
Improving Education In The West

Appendix B

December 7, 1983

Dear

As you may know, the Western Interstate Commission for Higher Education was recently funded by FIPSE to develop an on-line computerized information system which students, staff, and administrators could access to obtain information regarding the articulation/transfer process between two year and four year institutions. Four states will be involved in the initial phase of the project. In California we will be working with institutions in the Los Angeles district. In Arizona we are working with institutions in the Maricopa Community College district and Arizona State University. In Colorado we will work with the Community College of Denver and Colorado State University. In New Mexico we will be working with two year and four year state institutions.

In order to design a program which can be used with a number of computer systems it is necessary for us to ascertain the kinds of hardware which are accessible to the project and to staff and students at each institution. We would certainly appreciate your assistance in helping us collect the necessary information. Each state has a state coordinator who can be reached for further information about the project. They are listed below.

Please complete the survey and return it to us by December 16 so that we can proceed with the development of a software package which might be adapted to your various systems. We appreciate your help in this initial phase of the project.

We are also enclosing an abstract of the project for your information.

Sincerely,

Martha Romero
Project Director

MR/kw

cc: Dorothy Knoell, California Coordinator
Alfredo de los Santos, Arizona Coordinator
Nancy Cameron, New Mexico Coordinator
Len Overturf, Colorado Coordinator
Glenna Sheer, California Community College Chancellor's Office

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SURVEY OF COMPUTER CAPACITY/CAPABILITY

WICHE has been funded to develop an on-line computer system to make information about transfer/articulation between your two-year and four-year institutions available. In preparation for working with WICHE systems analysts who will develop the software for such a system the following information about your computer systems is necessary. We would appreciate it if you could take time to provide us with the following information.

1. In preparation for development of the system, we need to know the size/model of computers to which you have access and which could be used in conjunction with this project (Vax, Cyber, IBM/PC, Apple, etc.).

   ____
   ____
   ____
   ____
   ____

2. The software and software licenses that might be available for use in this project are: (DBMS, statistical packages, communications networking, etc.).

   ____
   ____
   ____
   ____
   ____

3. In the system listed above, do you have unused capacity which could be devoted to this application?
   Yes __________ No __________
   Comments: ____________________________________

4. What are approximate numbers of terminals which are available for student/staff use? ________________

5. When a data base is established which can be adapted to your system, is there money to maintain and update the system? ___ If yes, estimated budget.
   $__________.

6. Name of programmer or systems analyst who should be contacted to talk about your system in technical terms? ______________________________
   Address ____________________________________
   Phone ______________________________________
   Institution __________________________________

COMPUTER SURVEY RESULTS

SCHOOL	SIZE/MODEL COMP.	SOFTWARE	USABLE CAPACITY	AVAIL TERMINALS	AVAIL MONEY	PROGRAMMER
U of NM Valencia Campus	Apple II, 64K TRS-80 III IBM/PC Dec POP 11/70 IBM VSPC	unix vspc mvs	yes, possibly	16	?	Harry Houtz 351 Rio Comm Belen, NM (505)865-6560
Eastern NMU Clovis	IBM System 34 IBM PC IBM System 23 Radio Shack Model II & III	?	yes	13	depends on cost	E. Hammonds ENMU-Clovis (505)769-2847
Eastern NMU Portales	IBM 4331-4meg VAX 11/750-2meg Apple III IBM pc's	too many to list, esp, usu, SAS	yes	50	yes	Bill Bryant Director Comp. Serv. ENMU-Portales (505)562-2694
U. of New Mexico	VAX 750,780 IBM 4341 IBM pc Apple, others	vspc, vms, unix and many other standard packages	not at this time	2-300	yes,? how much	David Harris Computer Cntr. UNM (505)277-2211
Western NMU	DEC VAX 11/780 DEC VAX 11/750 Apple IIe Radio Shack Model II, IV	vms, poise dms stat	no, limited disk	75	no	Judy DeVore Comp. Serv. Western NMU (505)538-6437
NM State U Grants	IBM pc 128 k/dual flop	none currently	yes, floppy disk capacity only	13	yes	Ron Jernigan P.O. 906 Grants,NM (505)287-7981

SCHOOL	SIZE/MODEL COMP.	SOFTWARE	USABLE CAPACITY	AVAIL TERMINALS	AVAIL MONEY	PROGRAMMER
NM Junior College	Dig.Vax 11/780 IBM System 34 Apple, 31 micros DEC VT 103, HP R. Shack, 16WPs Atrl, Rainbows	Dig-dbms, spss, datatrieve, fms, Poise dms	yes	105, 6 line rotary dial-up	yes, $50,000	John Havink Lovington Highway NM Junior College (505) 392-4510x287
Northern NM Community	Apple IIe (16) Dig. PDP 1144 w/RTS Operating	none	yes, ? avail. due to projected increase in instruc. usage	16 PDP 1144	no budgetary restric.	Ron Black P. O. Box 250 Espanoloa, NM 87532 (505) 753-7141
Albuquerque Tech-Voc Inst.	IBM/PC Apple Plus Apple IIe Osborne Exec. IBM system 34 IBM 4331-L02 DC-M600	stat pack IBM rscs adrs	yes, only if 3rd shift implmnted	72 connected to mainframe 20 standalone	no	Line Bock 525 Buena Vista SE Albuquerque 87106 (505) 848-1400
Santa Fe Comm. College	IBM/PC	stat. pack to be determined	yes	40	no	Randy Grissom Box 4187 Santa Fe, NM 87502 (505) 471-8200
San Juan Coll.	DEC PDP 11/44	Poise dms spss	no, some avail. to WICHE	24 student 12 staff	possibly	Pauli Holmes Dir. Comp. Serv. 4601 College Blvd. Farmington, NM 87401 (505) 326-3311x223

SCHOOL	SIZE/MODEL COMP.	SOFTWARE	USABLE CAPACITY	AVAIL. TERMINALS	AVAIL. MONEY	FROGRAMMER
Tucumcari Area Voc. School	Apple II IBM/PC IBM System 34 Radio Shack TRS 80 model 3 & 4	visecalc scripsit network 3 budget mgt (all on TRS 80)	yes	(blank)	no	Virgil McDonald 824 W. Hines Tucumcari NY 88401-1143 (505) 461-4413
Luna Voc-Tech Institute	Sperry Sys. 80	none	not at this time will have 4-8 hours/week	16 student 12 staff	unknown	Donald Bustamente Luna Voc-Tech Drawer K Los Vegas NM 87701 (505) 425-7607
NM Military Institute	DEC POP 11/70	none	no	60+	no	Carl Dahlberg College & Main Rosswell, NM 88201 (505) 622-6250x277
New Mexico Tech.	HP/3000 - 44	image, database query, report writer, multiplan	yes	65	yes, $1,000	R. W. Tacker Campus Box N Socorro, NM 87801 (505) 835-5700
Colorado State	Vax 11/780 Cyber 720 IBM/PC, PC/XT Apple II	Vax 11/780 vrs cobol; Cyber nos, spss, s2k, cubol; IBM ms/dos r-base, 1-2-3, xtalk, cobol	as needed	depends on unit	$300-900	D. Allen Eddy Rm. 210 Ad. Annex Colorado State Univ. (303) 491-7201
Comm. Coll. of Denver	Vax 11/750, dmeg, Del-1144	dbms, cobol, basic, datatrieve dec pc 325	yes, depending on priorities	50 for students 16-30 for staff	yes, ? how much	Ed Starr 1600 Downing Denver, CO 80218 (303) 866-3470

SCHOOL	SIZE/MODEL COMP.	SOFTWARE	USABLE CAPACITY	AVAIL. TERMINALS	AVAIL. MONEY	PROGRAMMER
Maricopa Colleges	Dec Vax 11/780 Apple IIe Dec 350 IBM PC	spss, decnet dec vrs, sas, all in one	yes	500	yes, whatever is needed	Don Shehl 3910 E. Washington Phoenix, AZ 85034 (602) 244-8355
Arizona State University	Amdahl 470V/7 IBM pcs (174x+XTs)	l dms, ldsm-dc vm/cms ?	maybe, depends on time of day/ year	unsure	maybe	Linda Bankson ECA-Computing Serv. Arizona State Un. (602) 965-7741
Los Angeles Pierce College	Apple IIe Harris 8170	?	?	30 on campus	?	Gerry Mueller Director Data Processing LA Comm Coll Dist. 617 W 7th St. LA CA (213) 628-7788
West Los Angeles College	Honeywell Mnfrm Altos 4-station multiuser micro standalone apples	custom software	yes	12 staff 4 student	(blank)	Gerry Mueller (see above)
Los Angeles City College	Systms Grp;micro, multi-terminal Harris, Apple II Star Modem	dbms, wrdstar, mailmerge, calcstr supersort, vedit	?	4-student/staff 1-staff	?,none at present	Casey Cole EOPS LA City College 855 N. Vermont LA CA 90029 (213) 669-4000

Appendix C

3:30- 5:00 p.m.	**GENERAL SESSION V** Center for Information Services Western Interstate Commission for Higher Education (WICHE) **Jim Reed**, Director Center for Information Services **Martha Romero**, Project Director WICHE
5:00 p.m.	**DINNER** (on your own)

WEDNESDAY, February 8, 1984

9:00- 9:30 a.m.	**GENERAL SESSION VI** Presentation of Conference Results **Mary Day**, Coordinator of Program Evaluation **James DeVere** Programming Manager Maricopa Community Colleges
9:30-10:30 a.m.	Vendor Reactions and Technical Implications
10:30-11:00 a.m.	**BREAK**
11:00-11:45 a.m.	**GENERAL SESSION VII** Conference Wrap-up **Ron Bleed**, Director of Computer Services **Alfredo G. de los Santos Jr.** Vice Chancellor for Educational Development Maricopa Community Colleges

Cocktails — February 6, 1984
Courtesy of Digital Equipment Corporation

A WORKING CONFERENCE

On Student Information Systems Which Addresses Advisement, Academic Alert, Graduation Checks, Student Tracking and Follow-Up

FEBRUARY 6, 7, & 8, 1984

Valley Ho Resort
Scottsdale, Arizona

Sponsored by
The League For Innovation In The Community College
and The Maricopa Community Colleges

SUNDAY, February 5, 1984

4:00- 9:00 p.m.	Conference Registration Hotel Main Lobby
6:00- 9:00 p.m.	Cocktails Maricopa Hospitality Suite

MONDAY, February 6, 1984

8:00- 9:00 a.m.	Registration & Coffee Executive Conference Center Lobby
9:00- 9:30 a.m.	**WELCOME** **Paul A. Elsner**, Chancellor Maricopa Community Colleges **PURPOSE OF CONFERENCE** **Terry O'Banion**, Executive Director The Leage for Innovation in the Community College
9:30-11:00 a.m.	**GENERAL SESSION I** North Carolina State University Raleigh, North Carolina **Melba Bierley**, Systems Analyst Administrative Computing Services **Ronald C. Butler**, Associate Vice Chancellor for Student Affairs **James H. Bundy**, University Registrar
11:00-11:15 a.m.	**BREAK**
11:15-12:45 p.m.	**WORK SESSION I** Identification of Needs
12:45- 2:00 p.m.	**LUNCH** Pow Wow Room, Valley Ho
2:00- 3:30 p.m.	**GENERAL SESSION II** Miami-Dade Community College Miami, Florida **Richard B. Schinoff** Dean of Student Services
3:30- 3:45 p.m.	**BREAK**
3:45- 5:15 p.m.	**WORK SESSION II** Identification of Benefits
5:15- 6:15 p.m.	**COCKTAILS** Executive Conference Center **Lobby**
6:15 p.m.	**DINNER** (on your own)

TUESDAY, February 7, 1984

9:00- 9:45 a.m.	**GENERAL SESSION III** Oakton Community College Des Plaines, Illinois **John Donahue**, Vice President for Student Development
9:45-10:00 a.m.	**BREAK**
10:00-12:00 p.m.	**WORK SESSION III** Establish Priorities
12:00- 1:30 p.m.	**LUNCH** (on your own)
1:30- 3:00 p.m.	**GENERAL SESSION IV** Educational Testing Service (ETS) Los Angeles Community College District American College Testing (ACT) **Lucky Abernathy** Program Service Officer **Arthur Doyle**, Executive Director College-Level and State Services Educational Testing Service **John Roth**, Director of Career Services American College Testing **Glenna Scheer**, High School and College Relations · Outreach Los Angeles Community College District **James E. Dunning** Director of Admissions University of California at Irvine
3:00- 3:30 p.m.	**BREAK**

A WORKING CONFERENCE
ON STUDENT INFORMATION SYSTEMS
WHICH ADDRESSES ADVISEMENT,
ACADEMIC ALERT, GRADUATION CHECKS,
STUDENT TRACKING AND FOLLOW-UP

CONFERENCE RESULTS

USER NEEDS, BENEFITS, COSTS AND PRIORITIES

FEBRUARY 6, 7, & 8, 1984

VALLEY HO RESORT
SCOTTSDALE, ARIZONA

SPONSORED BY THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE
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AS 102/6

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PRE-ENROLLMENT

Coordination in all pre-enrollee mailings and avoid duplicaton and extra costs.

Analyses of current student population to determine number of students, majors and geographic location. Save time and manpower, planning and decision making.

Analyses of potential marketing efforts (e.g., what programs are needed by certain groups of students and how can we tell them we have programs they need).

a. Marketing plan to compliment the 5-year institutional plan
b. Select students to benefit most from marketing analysis

Job survey data - compiled from graduate follow-up. Career advisor, counselor, etc. Team presentations to prospective students - like Job Fairs. More meaningful presentations.

FINANCIAL AID

Student's Financial Aid or Veterans' requirements. Preventative medicine approach - saves time and increased accuracy - avoids audit problems.

Clear procedure needs to be implemented and automated of packaging philosophy which must coincide with available resources and student budgets. Equitable treatment of students.

Establish timeline utilizing automation. Control of Funds.

Automatic feedback of this impact of policy changes as it relates to tuition increase, admission, testing requests, registration dates, etc. on the Financial Aids office. Facilitate adjustments to packaging of awards.

Coordination of data processing services and staff necessary to meet the changing needs of the Financial Aids office. More efficient operation.

Develop and implement a self evaluation monitoring system. Preventive medicine for audits.

Prepare all necessary reports, example of FIS - AP in the Pell Grant Validation roster.

What is the student's total awards at all institutions in any given academic year? To avoid institutional liability.

FINANCIAL AID (Cont'd.)

Automatic review of "Standard of Progress" for Vet's, Financial Aid, to meet the requirements of Federal guidelines. Institutional liability and continuity of Federal programs.

How many eligible applicants who apply for student financial aid actually receive some type of funding? Federal funding formula and reports helpful to measure ability to meet student needs. Data beneficial in applying for other grants.

Maintain records on students who have received long term loans (NDSL and NSL) and to provide the loan area with the students most current address. Necessary for due deliquency requirement by Federal regs.

This system could help eliminate some steps in the paperwork processing for SS - Financial Aid veterans. If the system could weekly printout forms with discrepancies and all pertinent information, preparing it would eliminate the certification clerk having to type in all applicable information. Save alot of manual time and effort.

Number of recipients enrolled by program. Accurate data for reporting purposes.

If a student drops a class or is dropped by an instructor, it affects his status re Social Security, VA benefits, etc. Prevent over payment and audit exceptions.

Provide all available governmental financial aids information to comply with consumer information. Recruiting and retention.

Provide data that allows interface to Financial system for awards, incumberances, expenditures by financial aid program. Federal control of Fed. dollars. Accurate payments, avoid institutional liability.

PRIORITIES

SYSTEM DESIGN

System for purging and retrieval for re-enrolled student.
Have a "user friendly" report writer.
On-line interactive, user-friendly system (a non-programmer can use) to get individual as well as program information.
Integrate information as a part of a whole system.

PROGRAM INFORMATION AND SCHEDULING

Generate report on demand for courses based on student needs and program requirements i.e, information on students' degrees, major area(s) of interest, non-degree objectives, length of intended time of study. Induced course load matrix.

Project future course enrollment, based on placement scores, and programs identified.

Computer assisted student scheduling based on the assessment results for students.

Accurately list updated degree requirements, prerequisites.

Data on "other" prerequisites (licenses, professional experience) for courses and programs.

PROGRAM TRACKING

Determine if students taking courses as advised.

Determine how many students are in X curriculum or program of study.

Determine how many students are making satisfactory progress toward program objectives. To what degree?

Track reverse transfer students.

Track students who complete the CED test or high school completion programs and their enrollment in a curriculum program.

Identify how many attempts have been made by students to complete a class before they successfully complete.

Information on who completes the program, at what time does the student drop or transfer.
AS 102/6

Trace academic performance and relate that to placement testing to develop predictors for success.

Identify courses yet to be completed within majors.

Add course substitutions and waivers.

Perform a degree audit.

RESEARCH AND FOLLOW-UP

A system that could correlate data elements and perform other statistical analysis.

Capability to maintain historical data base

Identify the success rates of students from particular high schools.

Ability to maintain a historical master course file (e.g., credit changes, prerequisites

Determine the variances by sex, ethnicity, age, GPA, major.

Correlate the drop-out rate with test scores and other indicators. Identify the completers.

Add/drop activity by student.

Provide comparative data from other courses in other colleges.

Provide data on day and evening students and relationship to student services.

RETENTION

The term completion rate of those who register at various times and places.

Determine the drop-out rate.

Data of success on courses, teachers, programs (retention, grades, sequencing).

ADMISSIONS AND RECRUITMENT

Identify marginal students at the time of admissions.

Identify reverse transfer students.

Identify number of students who apply and how many actually complete the registration process.

Identify "internal prospects" for programs.

Enter data transcripted from other institutions into the system.

COST/BENEFITS

BENEFITS

Higher student success rate
Improved insitutional planning/budgeting/management
Better public relations
Improvement of staff morale
More accurate information
Better advising
Improved retention
Elimination of manual, time-consuming degree-audit
Fewer hours in administrative and clerical activities
Improved administrative activity (e.g. anticipate scheduling courses)
Early identification of problem students and student problems
Wide variety of research information available
Easier reporting on special populations (e.g., veterans', etc.)
Instant access to information
Timely updating of information/more accurate information
Better information on school and its programs for state boards, accrediting associations
Identify areas needing corrective measures
More efficient use of instructional resources
Less duplication of data
Less storage required
Simpler, more direct access to information (saves time)
Potential to increase student numbers without adding staff
Improved services to students (transcripts, academic checks, and advisement)
Implement/changes on a more timely basis

COSTS

DEVELOPMENT AND UP GRADING

Location, storage needs
New hardware needed
Security software and procedures developed
More personnel; shifting of resources
Equipment needs
Backup arrangements when the system is "down"
Training needs (clerical, staff, faculty)
Staging/phasing-in costs
Dislocations of staff (and impact on unions?)
Duplication of services and costs in initial phases
Impact of "change" on individuals in system
Time and effort and cost involved in selling the idea
Presystem investigation costs ("hidden costs")
Adjusting, customizing and enhancing the system
Direct programming costs
Maintenance costs
Software costs
Communications costs
Time lag between identified need(s) and adjustment in the system
"Opportunity costs" (What other tasks have lesser priority?)
Unrealistic expectations on part of users
Parallel maintenance while installing new system

RETENTION

Evaluation: advisor
- advisement
course/program
+ provides on-going checks
+ matching accomplishment with requirement
+ course work to date with college requirement and program requirement
+ financial aid
+ best, up-to-date info
+ curricular shifts
+ balanced scheduling
+ increased integrity of institution
- expensive
- time in development

Transcript/graduation evaluation - (on-going system) be able to do comparative evaluation over several majors.
+ provides on-going checks
+ matching accomplishment with requirement
+ course work to date with college requirement and program requirement
+ time saving; reduction staff load; more timely advise and planning
+ assist in meeting financial aid
+ increased effectiveness/accuracy
+ increased number of graduates
- development costs/time

Tracking success/pattern of course completion related to placement scores/developmental course completion.
+ evaluate and modify developmental programs
+ evaluation of faculty (indirectly)
+ improve material/instruction design
+ retention
+ evaluate assessment tools/scores
- minimal cost

Automatic letter generation for prescriptive communication with students related to progress.
+ communication with commuter students
+ personal contact/motivation for student
+ suggestions and encouragement
+ PR for services
+ helps retention
- mailing costs
- complaints on costs by public

Pre-track to see where students come from and see patterns of enrollment/success rates.
+ better advising
+ planning for development classes
+ better scheduling
- additional workload
- create problems
- may not be as valuable per institution

Assessment and follow-up of student goal achievement related to personal, academic and career goals.
+ articulation feedback and PR
+ includes employment needs
+ credibility with leg. and community
+ employer satisfaction
- on-going costs
- development costs

Tracking eligibility for financial aid - grants - loans. (progress shown; ability to succeed; vet program)
+ relief of liability
+ better advisement mechanism
- development costs
- time initially high

Contingency admissions/placement in (prereq.chain) course and programs.
+ success of students/programs
+ retention
+ screening tool
+ career/goal planning
- minimal cost

ACCESSIBILITY OF INFORMATION

Transcript/graduation evaluation - (on-going system) be able to do comparative evaluation over several majors.
+ provides on-going checks
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+ articulation feedback and PR
+ includes emplyment needs
+ credibility with leg. and community
+ employer satisfaction
- on-going costs
- development costs

Tracking for purposes of staff planning and course section planning so courses with low enrollment could be combined.
+ better scheduling and better use of facilities and staff
+ increased enrollment
- minimal cost (if any)

Insure all data collected can be usable for all reporting functions req/and set up to facilitate institutional research related to student tracking.
+ time saving
+ improves planning process
+ reduces reporting functions for IR
- minimal

Capability for conversion of courses (coding scale) for transfer purposes between a variety of institutions.
+ accountability for student and ease of transfer
+ cost saving for student
- development cost

ACCOUNTABILITY

Evaluation: advisor
advisement
course/program
+ provides on-going checks
+ matching accomplishment with requirement
+ course work to date with college requirement and program requirement
+ financial aid
+ best, up-to-date info
+ curricular shifts
+ balanced scheduling
+ increased integrity of institution
- expensive
- time in development

Transcript/graduation evaluation - (on-going system) be able to do comparative evaluation over several majors.
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+ employer satisfaction
- on-going costs
- development costs

Tracking eligibility for financial aid - grants - loans. (progress shown; ability to succeed; vet program)
+ relief of liability
+ better advisement mechanism
- development costs
- time initially high

The analysis of proposed changes as they effect curriculums and prerequisites
+ Prevents costly mistakes effecting other dept/programs

Contingency admissions/placement in (prereq.chain) course and programs.
+ success of students/programs
+ retention
+ screening tool
+ career/goal planning
- minimal

Insure all data collected can be usable for all reporting functions req/and set up to facilitate institutional research related to student tracking.
+ time saving
+ improves planning process
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- minimal

Capability for conversion of courses (coding scale) for transfer purposes between a variety of institutions.
+ accountability for student and ease of transfer
+ cost saving for student
- development cost

OVERALL COMMENTS

A functional system must provide selected accessibility at a variety of levels; administrators, counselors, faculty, advisors and students.

COSTS

Overall costs will be greatly affected by the computer history of the college (e.g., financial and resource committments to certain equipment, software, directions, etc.). It appears that upfront computer costs will be the most costly and the college's computer position may be an important cost variable.

BENEFITS

Overall benefits can be identified at all levels from PR with legislature and taxpayer to more efficient use of institution resources to effective planning to effectively moving students through goal completion.

The Admissions groups' material is presented in three categories as follows:

A. Priority Summarization

B. Needs

C. Benefits & Costs

A. Priority Summarization

First, the group expressed the basic need to have a total institutional commitment to the tracking system (faculty, administration, and staff).

The primary need is to develop a flexible, adaptable, integrated database management system which can collect and process student and academic data to assist the campus to provide these crucial services:

- Determine and define career and educational goals - a graduation plan would be generated for each student.
- Assessment of skills and abilities (test scores, rank, GPA, etc.)
- Financial Aid and fiscal operations
- Transfer articulation assistance
- Graduation check-off
- Early alert and monitoring of educational progress
- Transcript evaluation
- Demographics, including high school origin
- Career informational assistance
- Identification of special needs (child care, tutoring, etc.)
- Portability of the system
- Profile of extra-curricular involvement
- Data transferability between the micro and main-frame systems
- Good security system

The system must provide an ease in access to data and provide current, up-to-date information. Most of all, it must be "user friendly" in operation and documentation.

Develop a tracking system which is portable, possibly mobile units where prospective students could have access to terminals and assess their academic backgrounds against existing institutional programs, requirements.

Develop a system which helps track the progress of the initial applicant after he is admitted to the institution. For many community colleges, the admission process is in fact the registration process since many students show up on the campus during the late registration period. There is tremendous pressure to admit, test, advise, and enroll students in a final, frenzied activity. Many are last and never return to the campus - we need a better handle on our students.

Schools need to encouage (entice) students to register early and receive maximum advising, educational planning, and campus orientation attention. Some schools have proposed offering reduced tuition or early financial aid payments to entice students to register early.

Tracking might help an institution to assess the margin of error between what a student "thinks" he has earned at another institution versus his "actual" academic record. Most students do not have their academic records when they register late.

Tracking can help schools determine their promotional program effectiveness by showing the pieces of information mailed out versus the response of student enrollment.

Some schools utilize their counseling staff to visit various community agencies for recruitment (schools, churches, hospitals, banks, etc.). Tracking can assist by assessing the most productive areas of recruitment.

An improved course equivalency guide needs to be made between junior and senior institutions for the many transfer and reverse transfer actions made by students. Community colleges need a better handle on determining the profile of their reverse transfer population.

Tracking can help identify the special needs of certain student groups - divorced women, older students, handicapped students, etc. This system can also help the school determine if its service has brought any benefit to the student (retention, GPA, graduation, etc.).

Develop a system which can help schools obtain a profile of characteristics which can determine success or failure in the college setting.

Students need more personal faculty contact and tracking can show the results of improved inter-personal contact.

Capability of creating waiting lists for specific programs (i.e., nursing).

Admissions model for tracking competency assessments for entry level into some programs or particular school.

Method of correlating Standard Tests (ACT, SAT) or Admissions/CCP/ Personality tests to see how well students succeed in certain classes.

Tracking students on open entry/open exit classes.

Basic student information (as per admission application).

Student enrollment information (major or program, classes).

Student transcript.

Automatic repeat course input.

Tuition transfer between semesters.

Automatic recognition of standard course substitions.

Automated respones to applications for graduation.

What the Academic status of the student is.

Give more immediate knowledge of status of student.

Establish procedures within the Registrar's office for collecting, inputting and processing: degree requirements, course waivers, course substitutions and final degree certifications for undergraduate schools employing the current Registrar's records office organizational structure.

Establish an automated transcript system which would eliminate hard copy reliance, would provide on-line or batch production of transcripts and would store and supply all transcript information currently recorded manually.

Rely on the computer's processing capability as much as possible.

Establish a continuous student record file capable of supplyig all information necessary to produce automated transcripts and degree audits. This file would also provide for eventual registration pre-requisite editing and possible registration course demand reporting.

Design a system independent of current ST programs (e.g. grade change updates; course withdrawal updates, major change updates.)

Design a system which can audit by credit hour or course requirements.

Provide on-line update and display capabilities for both the audit and the transcript.

When we discuss "maximum flexibility in systems goal #65 we mean that the audit system should not be reliant on hard coded program changes for routine maintenance. We want to be sure, for example, that, if degree requirments change after a student's entry to B.C., the system can deal with it. This also ties into our 67th system goal where we want to rely on processing rather than coding. We reviewed some institutions who needed a coding sheet for every requirement entry on every student; we want the programs to match as many elements as possible.

When we discuss a "system independent of current ST program", we mean that we would not expect that each time a grade change, for example, was made that the student's audit would change. Rather, we expect that audits for all undergrads would run on a scheduled basis (probably once a semester and at degree certification time). After that, individual or group audits could be run on a request basis. But, no updates would automatically queue a new audit to run. And the on-line audit display would present the most recent audit with the "as of" date showing.

Flow must fit with an accounting system to collect fees, determine pay for faculty, determine payments to students, calculate refunds, etc.

How can courses be coded so that multiple equivalent courses can be noted?

Problems to be solved: simplify advisement process; ensure student transfer credits; isolate data about given populations and why they continue, drop out, change from transfer to occupational track, etc.

Collection of fees during registration without long lines or waiting.

How much clerical help needed - terminal time - etc? costs?

Who is responsible for it?

Who uses it?

Will it work for multi-copies?

Problems the system can solve - provide information on graduate to employers.

Date of acceptance. Undergraduate G.P.A. Current Semester G.P.A. Cumulative G.P.A. Course sequencing (in printable form). Current registration.

Define all data elements currently available and how they are updated.

Be sure to define what the tracking system will be required to do. That is "what performance will the success of this system be based on." Publish this!! Be sure. Get it in blood!! More blood!!

Based on #2, define new data elements needed somewhere to complete requirements in #2. Define how they would be grouped and who will be responsible for input and maintenance. Define equipment needed.

Construct a chart of functions and timelines, responsible persons.

Keep it simple (kiss theory).

Better understands the process.

Names and addresses of students who have made application, so they can (could) be contacted prior to registration. Program must be specified.

The system could do check-outs for certificate as well as degree applicants; print lists of recipients by name; provide names and addresses of recipients so that certificates can be mailed.

Could maintain a list of "stopouts" that could periodically be contacted to encourage re-entry. Should provide background (transcript) of these students in print form so that whoever is doing the contacting knows something about the student.

Establish a Graduation Check List which would automatically apply the credits earned to the degree program sought. This system could also be programmed to keep track of those courses which are most often used to meet General Education Requirements.

BENEFITS:

The system can help assure that prerequisites have been met either with the completion of a course or minimal placement scores.

A system can help us assess how effective we are in retaining our students. Retention has a major priority since it is easier to keep existing students than to recruit new students.

The system can keep track of our inquiries and help us communicate with a pool of potential clients.

Improve our ability to analyze credentials of incoming students with minimal staff time and effort. Data could be obtained and stored on the computer thereby freeing the time of staff for more personal interaction with students.

Improve advising for students who wish to transfer to senior level schools by maintaining a comprehensive, up-to-date equivalency guide.

Some major benefits include:

Increased convenience and accessibility for student and staff.
- Freeing staff to interact on a more personal, in-depth basis with students, especially true of the secretarial-clerical staff.
Automate some cumbersome clerical functions such as refunds.

Software might be developed to help an institution assess community needs and determine the level of impact the institution is having upon the various publics it serves.

C. Benefits and Costs

An institution may be able to recover some of the initial costs through the sale of developed software. There is a human cost in providing comprehensive training for all staff on the use and application of the system. Sessions like this one can prove extremely cost effective because vendors can develop the best features of systems throughout the nation at, hopefully, minimal developmental costs for the prospective user intitution.

DATA TO INPUT INTO SYSTEM

Test scores

Assessment information - cognitive style, study habit and attitudes, etc. Self-report of educational experiences; demographic information; medical information. Number of hours devoted to school; student requests for services and indication of when they were received.

Student's major and goals; why college; when and where student plans to transfer.

Predictive profiles of types of students against which to compare a new student.

College transcript, enrollment history, and updated student information.

FUNCTIONS SYSTEM IS TO PERFORM

Integrate assessment and placement with master file.

Allow for quick entry of data into system.

Translate assessment and placement information into:

- Suggested or prescribed class schedule
- Suggested prescription for success in college
- Red flag high risk and high potential students

Ability to correlate placement tests with grades.

Allow for recording of learning experiences outside of classes ie.
- interaction with a counselor or other student services personnel
- contact with a tutor
- completion of assessment information such as interest inventories
- participation in a drama production, etc.
- etc.

Allow for direct student viewing of selected subsets of the system. ie.
- transcript
- transfer profile for four-year institution
- change of major or program

OTHER

Pre-enrollment data - admissions
Testing for placement

Intervention - prescription for success

Record of courses taken either transfer or in residence

Review of academic progress

Intervention
  probation letters
  prescription for success

Graduation check

Transfer check 9(based on student goal and articulation agreement) follow-up and review - with inquiry for specific data.

System must:
  Be data based managed
  Be interactive
  Have inquiry capability
  Be staff and stduent friendly
  Have a user handbook

BENEFITS AND COSTS

TEST SCORES

Costs
Identification of tests to use
Development of assessment system
Costs of test and personnel to administer, proctor, etc.

Benefits
Group advisement system
Improved orientation for students
Better informed students for registration

ASSESSMENT INFORMATION CSM AND SH & A

Costs
Designing systems
Computer time and space
Student time to take

Benefits
Providing students with information about self for decision making
Info to advisors and counselors
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Profile info to faculty

MAJOR AND GOALS

Costs
Students who do not have majors or goals

Benefits
Institutional planning
Retention
Additional research information about students

PREDICTIVE PROFILE

Costs
Staff time to develop
Computer storage and use
Danger of misleading information
Staff development and training

Benefits
Improved counseling
Better info to student
Identification of high risk students
Retention/Public relations

COLLEGE TRANSCRIPTS

Costs
Identification of students who are high risk, etc.
Computer use and space

Benefits
Improved articulation with four-year schools
Improved advisement for students

OVERALL BENEFITS AND COSTS

Cost of all functions include

Designing system

Developing software

Cost of additional hardware to implement

Benefits for all functions include

Accessibility of information to institutions for planning research and improved service to students

Improved predictive information to student

Improved information for advisement

NEEDS

GOAL: A system for advisement; self-advisement

Provide information for advisement to advisors:

Courses that will transfer

Student demographic data

Computerized transcript

Detailing degree completion progress

Management of advisement for phone-in, mail-in admissions and registration.

Multiple semester scheduling

Net working capability

Access to student tracking data

Degree audit system by semester or by program

A student should be able to load in the number of hours per week he is working and the number of hours and type of classes he is taking and the computer should project amount of time a student has left after study, sleep, work.

Capability to footnote unique course requirements (i.e., prerequisite/-corequisite).

Alternative class schedule based on individual student needs.

Outline or batch processing should fit needs of user.

Method of incompassing changing degree requirements into degree audit system.

Need to continue having personalization with adopting self-advising system.

Must determine whose responsibility is advisement (departments, faculty, counselors).

Degree audit system would have to allow for check of fulfillment of degree requirements at a specific four-year school.

Need to define "advising" process and be able to satisfy governmental requirements.

Need way of evaluating success of advisement. Are students doing what they are told? What happends to those students who seek advisement and do not register?

After completion of so many hours, must meet with advisor to discuss progress toward degree.

System must have flexibility to address undeclared majors.

A degree audit system will help students to gain immediate access to requirements of a variety of degrees.

Assisting with students' degree decision-making process.

Self-advisement system would assist with advisement when faculty are not available.

To do advisement during one semester for subsequent semesters, you would need to have mid-term warning systems in order to do effective advisement for sequence courses.

Commitment needs to be made about what resources (counselors, faculty, paraprofessionals) will be available for advisement. If resources are faculty, then should release time be given for advisement?

Follow-up message and communication system to inform students on a academic or degree progres (including early warning).

BENEFITS:

Encourages Truth in Education Law

Necessitate "Cleaner Curriculum"

Clarifies degree requirements

Promotes better planning and decision making by student

Increases number of graduates

Increases security of student information

Savings of space - computer is file cabinet

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Provides data for State, Federal, Veterans and Financial Aid Reports (Increased Funding)

Provides more accurate student enrollment projection for more accurate scheduling

Inables more efficient use of personnel (time and activities)

Incorporate technology as an integral part of the educational setting

Promotes student awareness of how to move through the system

Aides students to better utilize campus services

Facilitate and improve the accuracy of academic advisement

Reduce registration costs

Improves retention

Assists with Recruitment

Attitudinal changes

Immediate management information

Improves research

More consistent and immediate advising information for students

Better able to handle program changes and get that information to advisors and student

Improves student monitoring

Self-advisement system could help spread advisement across disciplines.

COST:

The costs will vary dramatically among institutions based on their current processes, hardware, software, personnel and administrative commitment.

Existing mainframes, existing micros, existing staff, redefining staff functions

New equipment - perhaps driven by another set of decisions

Multifunctional equipment

Purchasing of software versus inhouse programming

Diversion of resources from other projects. As staff time is reallocated to intensive start up of new student information systems other college projects will be delayed or discontinued.

Opportunity costs of implementing self-advisement system

Accepting smaller system with capacity to add on

Facility costs (new, remodeling)

Training, upgrades

Operational costs, paper, postage, forms

Developmental and maintenance costs of software

Maintenance costs of equipment

New staff with new expertise

PRIORITIES

Self-advisement registration system for continuing students and possibly new students. (Include programatic advising module and degree check.)

Ensure simplicity of self-advisement and registration process, optimizing technology and human factors.

Adequately staffed, trained or retrained advisors and counselors to help students needing additional help.

Follow-up message and communication system to inform students about progress toward academic and program completion. (Include: self alert)

Natural Language interface.

I. ARTICULATION

Establish communication between 2-year and 4-year institutions.

Must be a funded commitment.

Formalize articulation agreements as to admission requirement courses, and programs.

Articulation agreements must be accurate and binding.

Provision not only for course equivalency but also applicability.

Identify general education components of several institutions.

II. INFORMATION TO THE STUDENT

University check sheets for community college students - paper or computer.

General education component for students who do not know direction.

Information on comparable admission and program requirements, prerequisite courses, GPA, etc.

Accurate picture of total educational opportunities available.

Accurate statement of transfer requirements.

III. COMPUTER MONITORING OF COMMUNITY COLLEGE STUDENTS PROGRESS TOWARDS MEETING PROGRAM REQUIREMENTS AT GIVEN 4-YEAR INSTITUTION

Identify transfer students, their goals, transfer institution and program.

Develop computerized transfer check of progress.

Periodically review with the student.

Progress report to student and otehrs as appropriate.

IV. OTHER

Program to monitor completion of specific program requirements by the time student completes a given number of units.

V. BENEFITS

Incoming student would have a more accurate picture of total educational opportunities available.

Computerized system would monitor student progress as measured against institutional requirements to complete certain classes within accumulated credit hour block.

Students need to know transfer requirements so they know where to start, clearer sense of direction. Less lost time. Decrease attrition.

Saves money for both students and institution. Do more for the student without increasing costs, save tax dollars.

Public relations benefit with more graduates and successful transfers.

With more information on what courses students need could improve course offerings.

Will force better communication both internal and external.

Better faculty advising with more accurate tools.

On-line, up-to-date; reduction in number of documents.

Students more likely to complete goal knowing that courses will count at the transfer institution.

Reduce conflicting information.

Aid in recruitment, increased access at the community colleges.

Quick inclusion of curricular changes.

Advising transcript useful; course-by-course equivalencies.

VI. COSTS

Cost of communication getting information network going, establishing equivalencies.

Cost of equipment, software.

VII. STEPS

Automate catalogs of colleges in the state.
Common course numbering system.

I. PROGRAM AUDIT

Student's status regarding completion of degree requirements (if applicable).

Student's status regarding academic progress requirement. Student's past encounter with academic progress requirement. Student's present course schedule in relation to degree or major requirements.

Performance in certain preprofessional can be monitored to assist student in academic program decisions.

* Develop feedback to advisors, in common terms relative to what automated systems do.

Assure that students are included in communication flow which includes information which affects them.

Assure that students are informed about courses which do not apply to degree requirements.

Develop a system which accommodates student goals which are non-traditional in nature.

NOTE: For community colleges degree audit should be de-emphasized. Emphasis should be on program audit, degree programs included.

II. ACADEMIC ALERT

Automatic generation of academic warning, probation letters.

* On-line access to above data.

Academic Alert System may depend heavily on faculty participation.

A special alert anytime a student approaches a critical point in a course.

Develop system which focuses upon re-directing high-risk students toward more realistic career goals.

Develop a system which immediately informs all offices or departments in the institution -- veterans, financial aid, etc. -- when students reduce class load, withdraw, or take any other action which has subsequent effect on them. This kind of monitoring should be constant.

* Relate to both clusters. Components within clusters are interrelated -- cannot be prioritized independently.

	BENEFIT	COST
1.	Reduces advisor time; more accurate; student better satisfied; increased efficiency.	System development -- hardware and software; training requirements, on-going; curriculum monitoring, update
2.	Increased student retention; student feels better served; improved planning.	Additional reporting; personnel training.
3.	Students know where they stand; cuts out clerical tasks; timely.	
4.	Ease of access; makes immediate retrieval possible; availability of more accurate information.	System development; possible lack of security.
5.	Allow early detection of questionable career choices.	System development.
6.	Students better informed about progress.	Increased reporting.
7.	Early detection of student problems.	Increased monitoring and reporting requirement by faculty.
8.	Increased understanding of system resulting in better support.	Need for training; more complex programming.
9.	Contributes to student's understanding of own progress or lack of.	Increased reporting.
10.	More efficient use of student time; accuracy of course selection.	
11.	Acknowledges that students have valid non-traditional goals.	System development.
12.	Increased efficiency -- student and institution.	
13.	Presents a variety of serious problems for students.	Increased monitoring and reporting.

JOB PLACEMENT

PRIORITIES

Ability to store, list, sort, organize, and print jobs on computer file.

Ability to store, list, sort, organize and print student profile.

Ability to MATCH student skills, educational and experience to employer's needs and job qualifications.

Ability to identify potential graduates at least 3 months prior to graduation (certificate or degree). Benefit: to provide job readiness.

Training ability to generate routine and specialized reports.

Ability to store and print current labor market information.
Example:
- a. Current job market information
- b. % of students employed in different program areas
- c. For statistical reports

NOTE: This is recommended as a separate software package for access to advisors, counselors, R & D, marketing and Career Planning and Placement offices.

BENEFITS

-More students get jobs
-Benefit to employers which in turn affects legislators
-Better match of student skills to employer requirements
-Increase efficiency of placement office
-Realistic job experiences can asist students in setting goals
-Job demand and current placement trends
-Accountability to legislators, taxpayers, accrediting associations
-Access for routine and specialized reports
-Information for marketing purposes
-Assists in evaluating college programs
-Increased cost effectiveness
-Increase job development ability
-Provides students with additional financial assistance to meet educational needs
-Provide for a systemized tracking and follow-up process from entry-level, etc.

FOLLOW-UP

PRIORITIES

Definition and selection of target populations for follow-up.

Current updated addresses and phone numbers of target populations and automatic mail follow-up to graduates - completers after 6 months, 1 year, etc.

(Course program completers)
(Transfer students)
(Employers of students)
(Birthday card update of selected program completers only)
(Capability to do telephone survey follow-up)

Downloading of selected target populations (date elements) to micro/mini files/computers for long term follow-up (example: alumni, marketing for future courses).

Electronic transcripts from transfer institutions for selected population follow-up.

BENEFITS

Better instruction thru feedback to instructional process from 4-year schools and employees.

Meets needs of business, industry.

Need for program/college accountability.

Improves long-range planning.

Increase retention.

Information on job market/needs-trends.

State reporting functions.

Evaluation of placement services.

Facilitate report generation - placement, etc.

Control of articulation process to universities, secondary schools, etc.

Projections/forecasting.

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COSTS

Mail costs.

Computer/hardware-programming.

Data entry.

Burn out of people.

Storage of student records. Update of addresses.

Updating of technology.

Two related but distinct areas:

- job placement prior to students' leaving the college.
- follow-up (transfer or job-related after students leave).

JOB PLACEMENT

Generate a mini-resume capability. Send them to employees upon their request. Send them by number (not names) to employees. Keep it confidential.

Message phone-permanent way of contacting student (parent, relative, etc.)

Matching system - to pull up students skills and objectives with employer needs.

Is the student's present job related to his/her degree objective?

Generate weekly list of jobs available to students.

Generate weekly list of students available for employment.

Keep track of number of referrals to jobs, and record of students in career positions.

Follow-up on certificate completers, degree completers, students with marketable skills, students who used job placement services to find jobs.

When student approaches graduation, could the computer give us data indicating: student's major, whether or not the student wishes a job related to his/her majors. (Could be used to form groups of "Job Seeking Skills.")

Has a student attended course or workshop on Job Seeking Skills?
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Prior to graduation, students need to indicate if they want help in finding a job.

FOLLOW-UP

Transfer and job follow-up are really the same question: what happens to students when they leave the institution? How have their community college experiences benefitted/affected them?

Definitions needed:

Who to follow-up? Who is a occupational program completer? Who is a transfer?

The system needs to provide optional definitions of who needs to be followed up. Same thing less than "all students" needs to be the focus of follow-up efforts

Reason to do follow-up:

Need for program/college accountability

Need for feedback to instructional programs from students and employees

Need to increase retention

The system needs to allow students to declare educational/career intentions -- and not be limited to transfer vs career options

The system needs to allow change/updating of student intentions

The system needs to operate on efficient hardware, a micro or mini computer

The system needs to be a scaled down version of existing comprehensive systems (TEXSIS, etc.) Specific data elements need to be identified as critical. Options need to be allowed in selected data elements included in follow-up system

Elements of follow-up:

Student intentions
Job data: salary, date of employment, job title, etc.
Employe follow-up
Job history
Further education
Student evaluation
Academic performance measures
Articulation success
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The system needs some way of keeping former student addresses and phone number/contacts up-to-date in an efficient way.

The system needs to identify institutions to which students transfer.

The committee also noted that needs listed in original document should be included for prioritization.

STUDENTS

Which students enrolled but withdrew before the 45th day of class?

Who registered but discontinued their enrollment because the class was closed or cancelled?

Which students have a high rate of absenteeism?

How do students perform in college level courses after completing one or more semester of developmental education?

What are the characteristics of students at my institution who discontinue enrollment prior to completion of their educational objective?

Are academic placement scores an accurate predictor of success?

What are the remaining courses a student must complete before earning a degree or certificate?

What is a community college course equivalent to at one of the major in-state universities?

What is the university course equivalent to at the community college?

What is a student's accumulative GPA?

Which students are making unsatisfactory progress at mid-term?

Which students are undecided about their program of study?

What percentage of our student population enroll directly out of high school?

Which high schools are primary feeder institutions?

COMPLETERS

Are our graduates employed in a job related to their field of study?

How do our graduates perform if they transfer to a four-year college?

How does their performance at the university compare to other student subgroups?

What percentage of our students complete their educational objective without completing a certificate or degree?

What problems do you expect it to solve?

Identifying specific target groups for marketing efforts.

Evaluating recruitment activities.

Accessibility to student data for purposes of reporting and grant proposals.

Opportunity for identifying high-risk students and planning special intervention strategies.

Graduation checks.

Transcript evaluation made with immediate feedback to students.

Program and course changes can be entered into the data base at the time of approval without having to wait for the next printing of the catalog.

Provides comprehensive data base for educational planning and decision-making.

Are there other sections or areas that need to be added to the Student Flow Model?

None that I can currently identify.

INFORMATION NEEDED FOR SELECTED GROUPS FOR FOLLOW-UP

Will the information be used?
Develop competencies (for those state without them).

JOB PLACEMENT
JOB FOLLOW-UP
TRANSFER'S PERFORMANCE

TRANSFER STUDENTS

Where are they transferring from?
What school?
What field?
Problems with articulation
Degree achievement
Performance
Persistence
Satisfaction with college services
Credits - completed/lost in transfer
GPA in college and university

COMPLETERS OF DEGREE PROGRAMS
(Career, occupational, vocational, technical)

Employment status
What aspects of curriculum helped them in preparation?
How many transfers?
Employer evaluation of program
How much money do they make?
Promoted
Job history
Employer satisfaction
Prior work experience in field?
Competencies that relate with job
Employee evaluation of job

CAREER PLANNING AND PLACEMENT CENTER - USERS OF CENTER

How did you know about service?
Did you get a job thru the service?
How could Job Placement service be improved?
What aspects of Job Placement services did you use?
How many students obtained jobs (part-time, full-time)?

Create a design, documentation and plan for a career development management/tracking system.

What jobs are currently available for students?

Improve articulation with prospective employers.

Have implications for the providing of Career Services.

Indirectly, to assist those still looking for employment.

Provide work history information on students, job placement statistics, job orders, sharing job orders/info with other campuses, employee follow-up information, etc. It would do away with reams of paper and forms, as well as hours spent on the telephone following up job referrals.

The types of information we could retrieve from the tracking system are almost limitless - who was hired, where, when, at what salary, for how long, major area of student vs. occupational category, etc. I imagine that it will give us the above info and more - in a matter of seconds - it now takes us days.

Can we have student follow up on the tracking system? I would like to know where my students are being placed after they leave MCC.

Record jobs available in placement center.

Cross-reference student availability with jobs available.

Advise department when student is placed.

Student's employment plans.

Follow-up data (comparative).

Automatic mail follow-up to graduates--completers after 6 months, 1 year, etc.

Where do students go after dropping out of a single institution? How long do they stay out?

Correct placement by institution and location with statistic followup with career success.

A major factor to be considered in the evaluation of Occupational/ Technical courses and programs is the follow-up data on where students are working (or continuing in school), what kind of work it is, whether or not it is related to their training and education, and periodic estimates of success on the job.

The GCC North Central Report indicated concern for the lack of organized program follow-up. This is currently extremely difficult if not impossible to operate in an organized and systematic way. We need this kind of information that can give programs the feedback needed to stay current. This is perhaps the most critical issue that would be solved within the area of Occupational Education.

For evaluations, graduated students are needed (ex. ABET accreditation).

JOB PLACEMENT
JOB FOLLOW-UP
TRANSFER'S PERFORMANCE

Are the students obtaining employment in the area of schooling after 1 semester, 2 semesters, graduation? i.e., Are the occupational programs doing their job?

Provide them with necessary information for program completion, transfer credit, occupational outlooks, job history, job placement, follow-up statistics, etc.

What happened to the trainees after leaving the Skill Center?

Are they using the skills they were trained for?

What do they think of the training?

How long does it take to pay back the training cost in taxes after employment?

What useful suggestions do graduates have for improving training?

Their present rate of pay.

Whether they have used their skills on the job.

If unemployed, were they available for work?

Cost per job placement.

Total number who completed or discontinued training.

Total who did not complete trainingTotal number of positive terminations.

Total number employed in type of work for which trained.

Total number employed in a closely related field which requires substantial use of skills acquired.

Percent employed in job related fields.

Maintain names and addresses of graduates by program, so they could be contacted for "refresher" courses.

I would also like to be able to find out where the students are working and how they are doing in their jobs. In addition, it would be very gratifying to see how the graduates are doing in upper level courses at universities.

Follow-up is very important in our discipline. All of our students who wish employment have jobs before they graduate. However, we are not always aware of where they are. So, when we send out questionnaires to students and employers in 4 or 5 months after graduation, we are not always sure of where the grads are located.

Provide a link between the college and students who have been in our programs for continuing education purposes.

Would answer questions concerning students present occupations and the training they received at the college.

Information after the student has transferred to a four-year institution.

Develop procedures linking transfer admissions data entry to the Student Continuous Record File.

How successful are graduates when they leave -- do expected institution competencies match with real world needs.

Add Alumni Contacts.

We currently have agreements with ASU, and will have one with U of A and NAU to provide us with reports each semester on students who transfer from us to them. Our student tracking system must provide for the procedures to analyze and utilize those data.

Have an accurate, realistic set of figures available for key areas like Job Placement and Followup, Transfer's Performance, etc. Currently these tasks would now take a tremendous time of staff time.

Have implications for articulation with the state universities.

Our main question for our area is "What happens to our students after they leave us?" Since our field is divided into university and professional schools, with the top schools often being the professional type, most of our students do not take the AA degree, but move on to a professional school, which does not require the general subjects load.

Could the computer find out at least where the students were requesting their transcripts be sent? That would give us some idea.

Where do they go from here? Transfer? Do they complete 4-year degree? Become employed? What type of work? Take time out and there complete education? How long a time out?

AS 102/6

JOB FOLLOW-UP
TRANSFER'S PERFORMANCE

An excellent follow-up program could be used to see where our graduates go after they leave us (school, employment, military) and also used for future studies to determine which courses/skills taken/acquired at a MCCCD campus proved most beneficial on the job.

Gather the following information from Arizona's four-year institution: Number of transfer students completing Liberal Arts Degrees, Arts and Science Degrees and High Tech Degrees; Number of 4-year graduates who become employed in their area of college preparation.

I would like to see what they do after graduation and if what I taught is being used.

The following are listed in temporal order and are not in priority ranking. However, we recommend proceeding in the following order.

A. Administrative Commitment and Support

B. Project Definition and Design

C. Software

D. Hardware

A. Administrative Commitment and Support

Administrative commitment and support are essential.

The setting of priorities and procedures is difficult obtaining because of campus politics.

B. Project Definition and Design

Student information systems can be developed through incremental steps/building blocks. However, attention must be paid to future steps and their compatibility with current steps.

Sections or areas to be added to the Student Flow model - under Pre-Enrollees: Dropouts and Special Student Populations (i.e., foreign students, veterans, handicapped, etc.).

Interface/communication between the users and DP personnel is essential. Users must be involved in developing programs to feel "ownership" of programs and applications. Data processing is a resource and the user must be involved and receptive to DP programs.

As users ask for more information to be processed with more knowledge, the need for more powerful equipment (mainframes versus mini-computers) and other resources increases.

Systems must be developed that allow students to be tracked over many years and changes in curriculum programs. Inconsistencies over years must be addressed/managed in order to get a common meaning.

Mobility is needed for degree audits, advisement, and transfer tracking while in the field.

The trade-off between student-entered data (through optical scanning) and the time and personnel commitment for institutional entry should be examined.

The information for transfer programs increases greatly as the number of transfer institutions increases.

Data elements should be stored in a relational data base structure; thus, enabling the use of standard data - base software and/or application packages based on data-based principles.

The application software should be directory-driven.

The use and/or scope of the system will determine if it can be used on micros. The institution must determine how micros will be used either as stand alone or as distributive processing (packaged software with files transferred from the main system).

C. Software

Users must realize that developing "user-friendly" software demands more computer power and resources.

Organizations shoiuld examine existing systems as "sibling institutions" from the point of view of compatibility.

D. Hardware

Equipment and software must be chosen on basis of compatibility.

BENEFITS

User-useable system

Return on investment of personnel and equipment

Makes job easier, "do-able"

Goal attainment

More satisfied users

Access to information

Better service to students in areas of advisement

Change in job

Improve decision-making by administrators and legislators because of better information (e.g. CEG)

COSTS

Released time

Percent of FTE reward for participation

DP needs time to be creative

Time for prototype development

Workshops and conferences for training on equipment

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Working Conference Minutes

Meeting held February 7:

The meeting was convened by Martha Romero, Project Director at 7:30 p.m.

Attending were: Alfredo de los Santos, James DeVere, Irene Wright, Ron Bleed, Maricopa Community College District; Leonard Overturf, Allen Eddy, Colorado; Albert Karnig, Arizona State, Arizona; Dorothy Knoell, Glenna Scheer, California; John Roth, ACT; Richard Schinoff, Miami-Dade Community College; Jo Waite, Don Bergman, Systems Analysts; Jennifer Franz, Evaluator; Martha Romero, Project Director.

Each state reported on their "state of the art."

Colorado--Len Overturf reported.

Colorado State University is interested in participating because:

- there is an interest in computerizing the existing course equivalency guides.
- there is an interest in increasing the number of minority students attending CSU.

See project in three phases:

- Work with WICHE and other states in design of an on-line computer system for articulation and would include
  - course equivalencies,
  - programs of study,
  - capacity for students to compare their programs against any in the system.
  - CSU is currently preparing the material which would be entered into the computer program.
- CSU is developing program agreements between CCD and CSU which will make it possible to contract with students at CCD. The contract would guarantee admission to CSU if the student completed a prescribed program at CCD.
- CSU is developing process to work with high school counselors to identify minority students with whom CSU and CCD could contract.

Arizona--Alfredo de los Santos reported.

- A statewide equivalency guide is published each year. Problem is that it is out-of-date before publication.

- Newly created by Arizona Board of Regents and State Board of Directors of Community Colleges, the Academic Program Articulation Steering Committee includes people from admissions offices and academic offices. Alfredo chairs the committee and the Vice President for Academic Affairs from the two universities serves on the committee.
- Articulation is generally handled by faculty representing a specific discipline.

Currently Maricopa is:

- Developing a faculty manual which will allow faculty at community colleges and universities to use the same information as basis for articulation discussions.
- Aligning course numbering system between university and community colleges. The target for this process to be completed between Maricopa and ASU is 1985.
- Then want to get the information on computer.
- WICHE money is being used to partially support the position of Articulation Specialist in Vice Chancellor's office.

California--Dorothy Knoell reported.

- California has 106 community colleges, 19 California State campuses and 8 University of California campuses.
- Forty percent of high school graduates go to community college.
- Eighty percent of all minorities in college in California are in community college. MALDEF has filed a petition against the three public governing boards. According to MALDEF, California processes make it almost impossible to figure out how to transfer.
- California would not be well served to have a course equivalency system.
- Don't want mandation.
- Don't like to talk about transfer; prefer to discuss baccalaureate-level courses. Each community colleges designates which of its courses are baccalaureate-level courses for the state university. For the University of California, community colleges must request that the University of California approve courses for transfer.

- Legislature has asked CPEC to do a study of common course numbering systems and develop a plan but it is doubtful that a common course numbering system will emerge. It is not wanted by California educators.
- Students do not earn an AA before transferring.
- Don't want to force students to make decision about majors too early.
- Computers should not lock students into a system.
- UC/Irvine system being developed will go up on all nine LA district colleges.
- Would like to use WICHE/FIPSE money to bring people together to discuss identifying potential transfer students, particulary Blacks and Hispanics.

New Mexico--not represented. Martha Romero reported that:

- New Mexico public community colleges are branches of the four year institutions.
- Community colleges are often perceived as vocational institutions and the transfer function gets lost.
- New Mexico does not have articulation agreements or course equivalency guides.
- New Mexico would like to print a course equivalency guide and develop articulation agreements in five disciplines; allied health, computer science, engineering, business and agriculture.
- Staff at the Board of Educational Finance is almost all new, and the person assigned as our liaison is leaving.

Survey of Equipment

Results of survey indicated that very few large machines are available to use for articulation. There are many different kinds of micro computers available. See results table attached.

Discussion followed:

- Dick Schinoff of Miami-Dade emphasized the program components.
    - Equivalencies alone will not tell students much.
    - The program of study at the community college should not be more stringent than a university freshmen/sophomore program.
    - Need groupings of general education requirements by majors. In that way can tie programs and courses together.

- While Arizona has articulation by department, community college staff start discussion from a framework of what is equivalent while universities start by discussing everything that is unique. The issues are not with general education requirements but with courses like circuit electronics and advanced management.

- Vocational courses are being discussed in Arizona in the context of technical degree programs.

- In Florida, occupational programs are not covered under articulation agreements. Only AA degree programs transfer. With vocational programs, individual deals must be worked out. They use 2+2 sheets to sort out degree courses and add to them.

Glenna Scheer from the Los Angeles College District Office shared the following observations.

- Problem in California is to get information to students as early in their program as possible.

- Any computerized program must be cognizant of who is going to use the information and how it should look when it appears on the screen.

- Some information is very important but unrelated to articulation agreements. For example:
  - what students can expect when they go to the campus
  - what student services are available
  - what majors are available and what programs exist under the major
  - what requirements exist
  - what application deadlines are
  - what financial aid is possible
  - dates of articulation agreement in place when student began and which his/her program is governed by

- In California university campuses now change program requirements at will and community college staff are not told so they give students wrong information. Therefore, a system needs to have capacity to be easily and quickly updated.

- Information about impacted program needs to be in the system. Students should know at the outset what their chances of being accepted into an impacted program are.

The meeting adjourned at 9 p.m. after an agenda for the next day was decided upon.

Meeting held February 8:

The meeting convened at 12:30.

Attendees were: Alfredo de los Santos, James DeVere, Irene Wright, Ron Bleed, Maricopa Community College District; Leonard Overturf, Allen Eddy, Colorado; Albert Karnig, Sharon Davis, Arizona State University; Dorothy Knoell, Glenna Scheer, California; John Roth, ACT: Jo Waite, Don Bergman, Systems Analysts; Jennifer Franz, Evaluator; Martha Romero, Project Director.

The agenda that was agreed upon included:

- identifying issues in terms of outcome and result
- identifying the users and the expected uses of a system
- some discussion of cost and benefit
- identifying common elements and outcomes expected from the project

The following points were made by states as well as by other group members interacting with each state coordinator.

Colorado

- Wants to define and finalize academic program agreements between CSU and the community colleges. Some of these are complete.
- Wants to communicate those agreements to targeted (minority) students in the community college and the high schools. Would like both paper communication and an interactive system that students can manipulate.
- The availability of contractual agreements with students needs to be disseminated. It is a recruiting, advertising and public relations activity.
- Course equivalencies are important; program dimensions are important and so are the kinds of information (GPA, application deadlines, etc.) which California people spoke about last night.
- Purpose of this project in Colorado was to get a design. We already have some contracts so hopefully, contracts can be transported.
- To date the process has been to start with the Vice President for Instruction at the community college. The Vice President presented plans to the Deans. The Deans were instructed to

assign someone from their office (an assistant or associate) to work with the Directors of admission at CSU and the programmer. These people serve as catalysts to faculty groups from the different institutions.

- Started two years ago with course equivalencies. Then moved to programs of study.

- A problem being faced is the fact that community colleges are on the quarter system and CSU is on semesters.

- Also, one can't always pin a program down to first two years, etc. Some students take general education requirements throughout their four years. In some programs, the community colleges only offer courses which will be covered in one year.

- Total courses transferred cannot always be regarded as a loss. Could also be seen as enrichment. Students change their minds; want to explore.

- If meetings held with students after they transfer, community colleges could better assess whether credits were lost because of the community college programs or if courses were taken as extra courses.

- Need to regard loss of credit if it greatly increases length of time students stay in schools but should also consider that few four-year students at four-year institutions end up with exact number of credits and graduate strictly within four year time frame.

Arizona

- In several months, drafts of the faculty articulation manual will be available to pilot. Arizona will share it with the other state coordinators.

- Seventy percent of course prefixes in Arizona universities are the same.

- Two sets of questions exist:
  - technical questions regarding money, hardware, etc.
  - policy questions regarding what constitutes an agreement, what flexibility will exist etc.

- Arizona students tend not to complete AA degrees before transferring

- It will be important to build the capacity of a computerized system to include information regarding
  - impacted programs
  - program space availability
  - changing GPA requirements

  - choices open to students if GPA is good enough to stay in school but not good enough to gain admittance into the program of their choice.
  - Situations where a student should see a counselor should be identified.

- As at Miami-Dade, the footnotes may be more important and greater in length than the course or program equivalencies.

California

- An effort is underway to define what is meant by baccalaureate-level courses.

- An effort is also underway to define what the associate degree is.

- Black and Hispanics in high school need to know that if they are not ready to face the stiff competition of the university, the community college gives them a way of reaching a baccalaureate degree in due time.

- California needs to identify potential transfer students. Faculty and counselors should be involved in helping students who have potential but who don't self-identify.

- Perhaps the computer is a non-threatening device students can use to explore options open to them.

Liaison with League for Innovation Task Force:

The group agreed that the Maricopa representatives will serve as liaison between this project and the League for Innovation Task Force formed at the Student Tracking Conference held concurrent to this meeting in Scottsdale. That task force has three goals:

- to identify diverse needs

- to lend technical expertise in responding to RFP for programming software modules

- to develop software modules that specifically address student tracking.

WICHE's role in the development of a system:

- The course equivalency guide is a good start and developing the appropriate software will expedite the process.

- Identify the warning signals--where do programs show a lack of articulation.

- Bring people together to share ideas so that each of our products improve.

- Serve as a medium by which we can share drafts of our products and get feedback.

- Design a curricular mapping strategy as part of the equivalency program so that when a student is taking a sequence of courses, the program which best fits that sequence can be identified.

- Convene a task force of technicians to advise us about how best to proceed toward our goal of providing a system which makes proper advisement possible.

- Have consultants identify the common elements of a system and get us to react.

Next Steps:

It was agreed that:

- The consultants will send out a composite view of data elements after viewing the video tape of Jim Dunning's presentation. This should occur within the next four weeks.

- A conference call be scheduled for the end of April to review and discuss the set of data elements identified.

- WICHE will develop a calendar for rest of the project.

The meeting adjourned at 2:30 p.m.

ARTICULATION PROJECT AGREEMENT

Academic Technology Services (ATS) agrees to participate in the initial stage of the Western Interstate Commission for Higher Education (WICHE) project "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions" funded by the Fund for the Improvement of Postsecondary Education.

The objectives of the project are:

1. To develop an on-line computerized transfer information system which sequences particular courses, uses uniform course descriptions and credits granted. This system would be available to students wishing to evaluate their transfer options at any given time in their education program.

2. To develop a faculty guide to orient faculty about the transfer-articulation process and the work completed by previous faculty committees and thus improve the productivity of departmental faculty committees seeking to establish specific transfer requirements for majors.

1.0 Responsibilities of the Western Interstate Commission for Higher Education

1.1 WICHE agrees to provide ATS with access to project coordinators and services in preparation for the system analysis.

1.2 To mail the equipment survey instrument and receive the responses.

1.3 To pay ATS upon receipt of a detailed time and staff report and final analysis report a sum not to exceed $4,000 and according to the extramural rates charged by the University of Colorado Academic Computing Services to non-profit organizations.

1.4 WICHE agrees to cover travel costs of contracted ATS staff to meetings with state coordinators/system analysts.

2.0 Responsibilities of Academic Technology Services

2.1 ATS agrees to provide WICHE consulting services regarding the development of a survey of computer equipment in the participating states and institutions.

2.2 ATS agrees to evaluate several software packages (RBASE, PICK, REVELATION) for useability with computer hardware available in the states in the development of a student advising transfer information system.

2.3 ATS agrees to meet and consult with systems analysts involved with WICHE in California, Arizona, Florida (as a model), New Mexico and Colorado in order to complete a comprehensive analysis of the data elements needed to develop a transfer information system in each state.

2.4 ATS agrees to provide WICHE a detailed listing of the hours and staffing provided to the project between December 1983 and April 1984.

Donald C. Bergman
Don Bergman
~~Director, Computing Services, ATS~~
Acting Manager, Computing Support Services, ATS

Dec 6, 1983
Date

Martha Romero
Martha Romero
Senior Project Director, WICHE

12/6/83
Date

Phil Sirotkin
Phil Sirotkin
Executive Director, WICHE

12/6/83
Date

ARTICULATION PROJECT AGREEMENT

Maricopa County Community College District agrees to participate in the Western Interstate Commission for Higher Education (WICHE) project "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions: funded by the Fund for the Improvement of Postsecondary Education from September 1, 1983 through August 31, 1985.

The goal of the project is to improve opportunities for students, especially minority students, to gain access from the two-year institutions in the District to higher education programs at Arizona State University through the transfer process.

The objectives of the project are:

1. To develop an on-line computerized transfer information system which sequences particular courses, uses uniform course descriptions and credits granted. This system would be available to students wishing to evaluate their transfer options at any given time in their education program.
2. To develop a faculty guide to orient faculty about the transfer-articulation process and the work completed by previous faculty committees and thus improve the productivity of departmental faculty committees seeking to establish specific transfer requirements for majors.

1.0 Responsibilities of the Western Interstate Commission for Higher Education

1.1 WICHE agrees to act as the coordinating agency and to convene the state project directors (Arizona, California, Colorado and New Mexico) as a coordinating committee to share information and problem solve the development of the software package.

1.2 WICHE agrees to provide the consultant resources needed to develop computer software which each state can adapt to its existing computer systems.

1.3 WICHE agrees to coordinate the evaluation of the transfer information system.

1.4 WICHE agrees to disseminate the results of this project through its Information Clearinghouse, by convening state level follow-up meetings in the other nine WICHE states as funds permit, and to prepare all final reports to the Fund for the Improvement of Postsecondary Education (FIPSE) as required by the grant.

1.5 WICHE agrees to pay Maricopa County Community College District $7,000 during the first year of the project and $4,000 during the second year contingent upon second year funding. Said monies will be used toward the salary for a new position (Articulation Specialist) in the Office of Educational Development. The Articulation Specialist will facilitate the *items identified in Section 2.0. The first $4,000* will be paid upon receipt of notification of the hiring of the Articulation Specialist, a job description of the position and a plan for computerizing information regarding the transfer function. $3,000 will be paid upon receipt of a working draft of the faculty manual. Second year funding, if available, will be paid upon receipt of an annual report of the first year project activities.

1.6 WICHE agrees to cover travel costs to meetings of state coordinators covened by WICHE.

1.7 WICHE and Maricopa County Community College District staff will establish submission dates for documents identified in section 2.0.

2.0 Responsibilities of Maricopa County Community College District

2.1 Maricopa County Community College District will initiate and facilitate the alignment of Arizona State University and Maricopa County Community Colleges courses to prepare such for computerized on-line information system.

2.2 Maricopa County Community College District will develop Faculty Articulation Manual.

2.3 Maricopa County Community College District will provide computer staff time needed to evaluate adaptability of generic software (transfer guide) to local hardware and database.

Alfredo G. de los Santos Jr. Vice Chancellor for Educational Development	8 Feb 84 Date
Martha Romero WICHE Project Director	22 Feb 84 Date
Phillip Sirotkin Executive Director, WICHE	Feb-27, 1984 Date

UNIVERSITY OF CALIFORNIA, IRVINE

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OFFICE OF ADMISSIONS   IRVINE, CALIFORNIA 92717

May 24, 1984

Dr. Martha Romero, Project Director
Western Interstate Commission for Higher Education
P.O. Drawer P
Boulder, Colorado 80302

RE: Applicability of the University of California, Irvine, Computerized Transfer Planning System to the WICHE Program, "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions."

Dear Martha:

I am summarizing the development and status of UCI's transfer planning (nee articulation) system for purposes of more clearly defining the role it might play in WICHE's project.

Background. For approximately one year, UC Irvine has been engaged in adapting microcomputer technology to (a) the management of articulation agreements among postsecondary institutions, and (b) the process of planning by prospective students for transfer from one institution to another. To date, the project has been with collaboration from Los Angeles Harbor College, where the system is to be piloted, and less directly with the Los Angeles Community College District. UCI has provided conceptual leadership, technical staff, and hardware upon which development has been supported. LAHC has contributed $1800 toward programming and the tape file of LACCS course offerings, and has assisted with the development of text and screen format as appropriate to the prospective users of the system. It is anticipated that substantial funding to implement the system fully at LAHC during the coming year will be made available through a Ford Foundation grant to that institution.

Current status. Microcomputer programs which will support the articulation interface among any number of institutions, subject to the disk capacity each site is willing to commit, presently exist in Revision 0.7, with Revision 1.0 anticipated by June 1, 1984. The system presently operates on an IBM XT computer, requiring at least 320 kilobytes of random access memory, a 8087 mathematics coprocessor chip, and Revelation data base management software by Cosmos. Hardware of this specification is to act as a file server at each site, with access by users from any number of compatible microcomputers at remote locations on the respective campus. Programs on soft disks have been made available to WICHE for perusal.

Appraisal. UC Irvine believes that this approach to articulation--or more accurately to the process of transfer course planning--is extremely promising.

It fully individualizes the student's ability to compare academic programs either among campuses or within a campus, and to evaluate instantaneously the applicability of his or her prior, current, or anticipated academic work to the various requirements of the prospective institutions and majors. Properly installed, the system should be available at the student's convenience, and frees the counselor from dealing with mundane course equivalencies, from correcting previous misinformation the student may have required, from leafing through hardcopy catalogues, and to counsel instead on the more subjective aspects of student choice.

The Irvine approach also acknowledges the reality that traditional articulation of a student solely between two institutions is becoming an exception. In many parts of the nation, such simplicity rarely would describe the degree of mobility which characterizes today's students. The system is designed to be almost infinitely expandable, subject only to the disk storage which supports it, so that prospective transfer students might navigate their way among the offerings of any number of participating institutions.

To further facilitate the articulation process, the system utilizes the taxonomy of Education Subject Matter published by the National Center for Educational Statistics in 1975. Courses may be described by a combination of up to three general topics and by a level of complexity, enabling more precision as articulating institutions compare offerings, as well as allowing users to address courses by content, beyond title alone.

UCI views this approach as particularly suited to students from underrepresented and disadvantaged origins who, by coming into the postsecondary planning process later in their educational careers and with less certainty about their aims and the resources available, may find the convenience, individualization, relative simplicity, and non-threatening nature of this system to be a spur to the continuation of their academic careers. Consequently, the Irvine system seems to be well matched to the aim of the WICHE project to improve transfer rates among these populations.

Proposal. The University of California, Irvine, supports the purposes of the WICHE project, and is willing to make this system available toward the solution of chronic obstacle to orderly transfer among segments: Lack of convenient access to comprehensive articulation information by prospective students. Under the assumption that a portion of the development effort which has gone into the system to date could be underwritten by WICHE, the system more recently has taken on a much more complex and comprehensive character than in the initial articulation with Los Angeles Harbor College. UCI's request for underwriting the system to the point where it can be fully operable in any site appropriate to the WICHE project, which can provide the requisite hardware, which will commit to nominal handling fees for acquiring the software, and which will pay for any necessary licenses to support associated software, is for $10,000.

When fully developed, the system will contain user documentation within the programs and screens themselves, so that both student users and administrators charged with updating content will receive all necessary instructions at the terminal. This documentation, a prospectus for the system, and such written documentation as will prove necessary, will be provided by UCI for additional underwriting in the amount of $8,000.

Should WICHE elect to promulgate this system within the region served by the project, UCI will provide appropriate personnel to travel, or will host or participate in workshops, and will produce instructional materials on a basis to be contracted with WICHE at a later date.

The University of California, Irvine, welcomes this opportunity to contribue to the improvement of the articulation and transfer planning process, and is appreciative of the endorsement which WICHE has given its efforts to date. Funding as requested will assist in defraying the substantial development costs which have been entailed thus far, at the expense of other campus priorities which have been deferred, and will enable the finished product to be of value to the project's constituents and to be of a quality with which WICHE can be proud to be associated.

Sincerely,

James E. Dunning
Director of Admissions

Martha Romero

Martha Romero
Project Director

Phil Sirotkin

Phil Sirotkin
Executive Director

BUDGET REQUEST

UC IRVINE ACADEMIC PLANNING/COURSE TRANSFER SYSTEM

PROGRAMMING ANALYSIS

System Design/Initial Development

Analysis/Systems Design	$2,500
Programming	2,100
Key Entry	2,000

General Administration

Administrative overhead, i.e., clerical/bookkeeping support, telephone, xerox.

Staff time - Senior Analyst

Assistant Vice Chancellor, Academic Affairs Academic Affairs	600
Registrar's Office	300

Consultation/Liaison

Director, Admissions-travel, meetings, consultation on project development.

Director, Community College Relations, Liaison/Coordination with potential systems users, development of mechanisms for user interface.

Admissions	1,500
Office of Relations with Schools and Colleges	1,000
Subtotal	$10,000

DOCUMENTATION

	Editing	Printing	Dist.	Totals
Prospectus	$1500	$1000	$500	$3,000
On Line User Documentation				1,500
User Manuel	1000	500	500	2,000
Update/Revisions	800	500	200	1,500
			Subtotal	$ 8,000
			Total Funds Requested	$18,000

ARTICULATION PROJECT AGREEMENT

Colorado State University agrees to participate in the Western Interstate Commission for Higher Education (WICHE) project "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions" funded by the Fund for the Improvement of Postsecondary Education from September 1, 1983 through August 31, 1985.

The goal of the project is to improve opportunities for students, especially minority students, to gain access from the Community Colleges of Denver programs to Colorado State University through the transfer process.

The objectives of the project are:

1. To develop an on-line computerized transfer information system which can serve as a guide to students and staff and which will identify designated courses and program requirements for transfer to CSU.
2. To develop a guaranteed transfer admissions system between the institutions named above.

1.0 Responsibilities of the Western Interstate Commission for Higher Education

1.1 WICHE agrees to act as the coordinating agency and to convene the state project directors (Arizona, California, Colorado and New Mexico) as a coordinating committee to share information and problem solve the development of the software package.

1.2 WICHE agrees to provide the consultant resources needed to develop computer software which each state can adapt to its existing computer systems.

1.3 WICHE agrees to coordinate the evaluation of the transfer information system.

1.4 WICHE agrees to disseminate the results of this project through its information Clearinghouse, by convening state level follow up meetings in the other nine WICHE states as funds permit, and to prepare all final reports to the Fund for the Improvement of Postsecondary Education (FIPSE) as required by the grant.

1.5 WICHE agrees to pay Colorado State University $7,000 in two installments during the first year of the project provided the conditions identified in Section 2.0 are fulfilled. $4,000 will be paid for adapting the transfer information system package to the participating colleges' computer systems and for putting supplemental material on line. Upon receipt of the state coordinators' report of the completion of this phase, $3,000 will be paid for the development of a guaranteed transfer admissions system.

1.6 WICHE agrees to pay Colorado State University an additional $4,000 upon continuation of the grant in a second year to complete and fine tune the new on-line system and to complete the guaranteed transfer admissions process.

1.7 WICHE agrees to cover travel costs to meetings of state coordinators which WICHE convenes.

1.8 WICHE and Colorado State University staff will establish submission dates for documents identified in Section 2.0.

2.0 Responsibilities of Colorado State University

As specified in 1.5, $7,000 will be distributed to Colorado State University during the first year of the project. Colorado State University will divide the activities to be carried out into three phases. The first two phases will be completed during the first year, and Phase III will be carried out during the second year.

PHASE I First Year

Colorado State University will assist WICHE in the design of a computer software package for display of course equivalencies and programs of study developed between the Denver Community College System and Colorado State University.

Through cooperation with the Denver Community College System (four campuses) agreements will be established for specific programs of study (majors) offered at Colorado State University. The Denver Community Colleges will offer the first two years of study in prescribed courses to be transferred to Colorado State University under a guaranteed contract.

PHASE II

Upon completion of the software package and the guaranteed program contracts, the programs of study and course requirements will be input into the computer software on-line system for distribution to the four community college campuses.

Funds for the first two phases of the project will be expended in the following manner:

1.	One month's salary for a CSU Computer Systems Analyst will be charged to the project for work with WICHE in the design and definition of the computer software package.	$3,227
2.	One month's salary for a member of the Registrar's staff will be charged to the project to work with the Denver Community College System in the identification of courses and programs for which the Community College of Denver System can offer the first two years of degree programs offered at Colorado State University.	$2,126
3.	One half month's salary will be paid to a staff member at the Community College of Denver to coordinate development of the first two years of degree programs.	$1,000
4.	Operating costs for the publication of a degree contract program document, postage and travel will be charged to the project.	$ 647
	First Year of Project	$7,000

PHASE III Second Year

During Phase III of the project WICHE agrees to distribute an additional $4,000 to CSU upon continuation of the grant to fine tune the on-line system and to complete the development of the guaranteed student transfer admission program. During the second year the following activities will be carried out:

> Identification of students in Denver area high schools who would benefit by beginning their college education at one of the two-year colleges in the Denver Community College System. This will be accomplished by making direct contact with the Denver Public School counselors. Students will be given copies of the guaranteed program agreements and will be given the opportunity to sign a contract that upon successful completion of the prescribed set of courses within a contract program of study, the student will be guaranteed admission to Colorado State University at the end of two years of study.

Funds for Phase III of the project will be expended in the following manner:

1.	One month's salary for a minority admissions recruiter at Colorado State University will be charged to the contract so that the counselor can work with the high school counselors in the Denver area.	$1,541
2.	Operating funds will be charged to the project by way of travel for the minority admissions counselor, printed materials, advertising the program, and postage.	$2,459
		$4,000

Leonard L. Overturf
Director of Admissions and Records
Colorado State University

Martha Romero
Project Director
WICHE

Charles O. Neidt
Academic Vice President
Colorado State University

Phillip Sirotkin
Executive Director
WICHE

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ARTICULATION PROJECT AGREEMENT

The New Mexico Board of Educational Finance agrees to participate in the Western Interstate Commission for Higher Education (WICHE) project "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions" funded by the Fund for the Improvement of Postsecondary Education from September 1, 1983 through August 31, 1985.

The goal of the project is to improve opportunities for students, especially minority students, to gain access from the two-year institutions to the four year through the transfer process.

The objectives of the project are:

1. To develop an on-line computerized transfer information system which students and counselors can use to evaluate transfer options at any given time in their educational program.
2. To develop five articulation transfer agreements which outline core courses and their transfer credits. The disciplines to be addressed are Allied Health, Computer Science, Business, Agriculture and Engineering Technology.

1.0 Responsibilities of the Western Interstate Commission for Higher Education

1.1 WICHE agrees to act as the coordinating agency and to convene the state project directors (Arizona, California, Colorado and New Mexico) as a coordinating committee to share information and oversee the development of the software package.

1.2 WICHE agrees to provide the consultant resources needed to develop computer software which each state can adapt to its existing computer systems.

1.3 WICHE agrees to oversee the evaluation of the transfer information system.

1.4 WICHE agrees to disseminate the results of this project through its Information Clearinghouse, by convening state level follow-up meetings in the other nine WICHE states as funds permit, and to prepare all final reports to the Fund for the Improvement of Postsecondary Education (FIPSE) as required by the grant.

1.5 WICHE agrees to pay the New Mexico Board of Educational Finance $3,000 to facilitate the development of articulation agreements in engineering, business, allied health, agriculture and math/computer science; $3,000 for testing and computerizing the transfer information computer program developed through the project; and $4,000 for travel to meetings by articulation officers and faculty of the institutions involved. The first $3,000 disbursement will be made upon receipt of approved guidelines for improving the transfer function between community and four-year colleges. The second $3,000 will be disbursed for adapting the transfer information system package to the participating colleges in New Mexico. $4,000 for travel will be disbursed upon receipt of a detailed plan describing how the money will be used to bring together faculty and articulation officers in New Mexico.

1.6 WICHE agrees to pay the New Mexico Board of Educational Finance an additional $3,000 in the second year to complete and fine tune the new system and to complete the five program transfer agreements. This payment is contingent upon receipt of second year grant from FIPSE. This payment will be released upon receipt of a complete report to WICHE of all activity generated in the first year.

1.7 WICHE agrees to cover travel costs to meetings of state directors which WICHE convenes.

1.8 Submission dates for documents identified in section 2.0 will be established by project staff.

2.0 Responsibilities of New Mexico Board of Educational Finance

1. The Board of Educational Finance (BEF) agrees to coordinate all activities related to articulation of programs and transfer of courses among the following colleges and universities in New Mexico:

University of New Mexico
New Mexico Highlands University
Eastern New Mexico University
New Mexico Institute of Mining and Technology
San Juan College

New Mexico State University
Western New Mexico University
New Mexico Military Institute
New Mexico Junior College
Northern New Mexico Community College
Santa Fe Community College

2. The BEF agrees to adopt guidelines describing articulation and transfer processes for all of the institutions listed. The advice and consent of all institutions will be obtained in establishing guidelines.

3. The BEF and New Mexico's colleges and universities will develop, with assistance from WICHE, transfer agreements in Allied Health, Computer Science, Business, Agriculture, and Engineering Technology.

4. The BEF will adapt computer software developed by WICHE for use by colleges and universities in New Mexico.

5. The BEF agrees to disburse the amount of $4,000 for travel of BEF staff and institutional representatives to meetings on this project.

   Travel will be paid for BEF staff and institutional representatives to meetings of general concern with articulation and to meetings at which course equivalency in programs in Allied Health, Computer Science, Business, Agriculture, and Engineering Technology is to be established.

   An accounting of travel expenses will be furnished to WICHE with copies of vouchers submitted to the BEF by travelers.

6. An amount of $9,000 will be expended for adaptation of software to include on diskette:

   a. Guidelines for Articulation
   b. Course equivalency guides for:
      (1) Allied Health
      (2) Computer Science
      (3) Business
      (4) Agriculture
      (5) Engineering Technology
      (6) Engineering

   Funds will be expended for a programmer or author to place these materials on diskette for Apple II, IBM PC, Commodore 64, and other microcomputers in the possession of admissions and counseling offices in colleges and universities. Materials and supplies will be purchased with these funds for the development of user-ready software. An accounting of these expenditures shall be furnished to WICHE.

7. A report of the status of the portion of the New Mexico project will be furnished to WICHE by the BEF in May, 1984.

Ted F. Martinez
Ted Martinez, Executive Secretary
Board of Educational Finance

May 21, 1984
DATE

Phil Sirotkin
Phil Sirotkin, Executive Director
WICHE

July 9, 1984
DATE

Martha Romero
Martha Romero, Project Director
WICHE

August 10, 1984
DATE

ARTICULATION PROJECT AGREEMENT

Los Angeles Harbor College agrees to participate in the Western Interstate Commission for Higher Education (WICHE) project "Improving the Articulation-Transfer Function Between Two- and Four-Year Institutions" funded by the Fund for the Improvement of Postsecondary Education.

The goal of the project is to improve opportunities for students, especially minority students, to gain access from the two-year institutions to higher education programs in California through the transfer process.

The objectives of the project are:

1. To develop an on-line computerized transfer information system which sequences particular courses, uses uniform course descriptions and credits granted. This system would be available to students wishing to evaluate their transfer options at any given time in their education program.

2. To establish a better process of identifying potential transfer students early in their community college career and to provide information about transfers to the University of California system and California State system.

1.0 Responsibilities of the Western Interstate Commission for Higher Education

1.1 WICHE agrees to provide $3,000 for part-time data entry support needed by L.A. Harbor to include in the ASSIST data base the courses articulated from two California State University campuses - Long Beach and Dominguez Hills.

2.0 Responsibilities of Los Angeles Harbor College

1.1 To purchase the services of a data entry clerk to expand ASSIST to include course transfer information from California State, Long Beach and California State, Dominguez Hills.

1.2 To document for WICHE the expenditures of $3,000 for purpose stated above.

1.3 To describe how the expanded ASSIST data base aids in the early identification of potential transfer students.

James L Heinselman

James Heinselman
President
Los Angeles Harbor College

8/20/85
Date

Del Anderson

Del Anderson
Dean of Students
Los Angeles Harbor College

8/20/85
Date

Martha Romero

Martha Romero
Project Director
WICHE

8-21-85
Date

Phil Sirotkin

Phil Sirotkin
Executive Director
WICHE

Aug. 21, 1985
Date

Appendix E

Minutes
Articulation/Transfer Project
Advisory Committee
Monday, July 16
Santa Fe, NM

Attending:

Bill Bruner
Lena Castillo
Jim Dunning
Allen Eddy
Rich Everman
Jennifer Franz
Dave Groth
Paddy Johnson

Cathy Joseph
Dorothy Knoell
Sigfriedo Maestas
Ted Martinez
Mary Ontiveros
Len Overturf
Irene Wright
WICHE Staff: Martha Romero
Katy Wogan

Opening Remarks: Martha Romero made brief introductions and stated that Jim DeVere from Maricopa was unable to attend due to an emergency appendectomy. Ron Bleed is also unable to attend because of other commitments. Alfredo de los Santos is unable to attend and will be represented by Irene Wright.

There was a report from each state on the status of their project.

Irene Wright from Arizona reported that Maricopa Community College District is working on articulation on different levels. One project is the course equivalency guide. There is still a lot of work to be done but promises to be a useful document. Another project Maricopa is working on is aligning course prefix numbers with Arizona State University (ASU) to assist students in a smooth transfer process. She anticipates implementation of this conversion to be effective Fall, 1985. On another level, they are working on a program to help Maricopa students transfer to ASU. This program, when completed, will allow students to enter into ASU with junior status. Given that ASU is composed of 11 colleges, all of which have their own list of general education requirements, this has proved quite impossible. As an alternative they have developed individual articulation agreements, at this time, in draft form.

AZ has a community college system and a university system, each with their own board: the board of regents and the state college board. In 1983 they formed a joint conference out of which came two committees. One of those committees is the Articulation Committee which is chaired by Alfredo de los Santos. The committee has been working on an articulation handbook which ties right into the WICHE project. At this time it is still to be revised and test piloted. The task forces formed on the state level are using the Classification of Instructional Program, published by the National Center for Educational Statics. The task forces reviewed university courses and then matched up with 5 or 6 course prefixes. The next step was to assign community college people to the same task forces to perform the same functions with their courses. Problems have arisen when information is not shared on a timely basis and a communication mechanism needs to be formed.

Dorothy Knoell reported that California has 70 districts,106 community colleges, 8 general campuses of the University of California, 19 campuses of the California State University System and 1500 off-campus centers. Students will move around, among, and between community colleges and within and between districts so it is wrong to assume that students will complete their education within a specific district. Although CA has more articulation information than it needs, the real problem is in communication. She stressed the very critical need for us to improve the rate of Black and Hispanic transfer students in the baccalaureate programs in our universities. The California Postsecondary Education Commission appointed an ad hoc committee and advisory committee to identify public policy issues and develop solutions for the state. Also, the legislature asked that a plan for a common course numbering system be developed. One of the impressive things about California is that despite its size, institutional mechanisms for articulation exist. At the annual articulation conference, anyone involved with articulation from the high school level through the University of California system is in attendance and more general issues get raised by the whole institutional system. One of the weaknesses of that process, however, is that it is difficult for faculty to attend and the group is composed mostly of counselors, advisors and administrators. Dorothy went on to explain the CAN (California Articulation Number) project. The CAN number is simply an identifier number for basic courses. It does not preclude or obviate the existing number but is an intervening number. It has the potential for being an alternate numbering system that could be developed system wide.

Mary Ontiveros and Len Overturf reported on the status of the Colorado project. Len stated that since the last meeting in February, program agreements between the Community College of Denver and Colorado State University have been finalized. These agreements have made it possible for students to sign contracts at the Community College of Denver and after completing a required program will be guaranteed admission to CSU. The idea which stemmed from encouragement from the legislature is an improvement for the school and will work well for students who know what they want. However, for students who are not sure what they want in a year, the contract will not be helpful. This program operates outside of enrollment caps and students who have entered this agreement will not be effected by any enrollment caps.

Bill Bruner and Lena Castillo reported on the New Mexico project. About ten years ago an interest developed in course equivalency in engineering. New Mexico State University in particular has been involved with articulation and is developing a course equivalency guide for engineering, business, computer science, mathematics, allied health and others. The New Mexico AACRAO (American Association of Collegiate Registrars and Admissions Officers) formed a committee to study the issue of articulation. The committee, which is made up of academic officers from two and four-year institutions in the state, was asked to review and approve a draft of the course equivalency matrix. It will then be presented to the Board of Educational Finance. It has also been voted that New Mexico AACRAO be the group that reviews articulation from year to year and make recommendations to the Academic Council. The task forces that have been working on these course equivalency guidelines will meet tomorrow to review progress to date.

Paddy Johnson from the Board of Educational Finance has been analyzing student transfer rates. Preliminary data indicates the average transfer rate in New Mexico is about 10%. The final data will tell us the transfer and retention rates.

The afternoon was spent discussing the computerized program, what it does, what the data elements are, its stage of development and timetables. The original articulation proposal asked each state to transport the Miami Dade course equivalency program; however, none of our four states has a common course numbering system or the kind of complex student tracking system of Miami Dade. None of our states are ready to take on a comprehensive student tracking system with the exception of Maricopa who have it in their long range plans but do not see it as a possibility during the two years of this project. Therefore, it is not feasible to use the Miami Dade computer program. However, the system being developed at the University of California/Irvine by Jim Dunning is beginning to have some real implications for articulation and we are now in a position to help in that development with the FIPSE money.

Jim Dunning explained that articulation is not a problem in California but that access to information not readily available to students is a problem. Students need to be given more freedom to seek information on their own. The system can accommodate any number of institutions that would like to participate. Students can sit down at a monitor and choose a major at one institution, enter in course they have already taken at another institution and find out what requirements they need. An institution will need to decide if it is a sending institution, receiving institution or both. A sending institution would establish a file with the entire curriculum on it. A receiving institution would need only to indicated courses that are articulated and how they are articulated. The information would be updated annually. Jim went on to discuss the more technical aspects of what is required by this system. Participants received an appendix containing a list of machine equipment that is required, and a description of the software package (Revelation).

The next steps and timelines were discussed. Irvine has sent a floppy disk to Maricopa. Maricopa on encountering some problems sent a programmer to Irvine (Jim Devere) who returned with a better sense of how the program can be utilized. Money has been earmarked for staff time to test the system at Maricopa. The timeline for this is September 1, 1985. For Colorado the timeline will be late October. Paddy Johnson from New Mexico would like more time to look at the system and test it. At this time she cannot estimate timelines.

Jennifer Franz, the evaluator of the project, discussed the objective of enabling more ethnic students to move through the pipeline. Optimally, four evaluation instruments would be designed, however, enough evaluation money is not available. She will work with each state coordinator to develop a teleconference protocol that might be a way to evaluate the project within the budget limitations. The telephone conference will be arranged through the project's support staff once the evaluator and state coordinators have outlined the outcomes, identified participants and developed an agenda.

Meeting adjourned - 3:30 p.m.

Articulation/Transfer Project Meeting
July 16, 1984
Santa Fe Hilton Inn

-AGENDA-

8:30 - 9:00	Continental Breakfast El Conquistador Room
9:00 - 9:15	Introductions
9:15 - 10:15	Progress Reports: Arizona, California
10:15 - 10:30	Break
10:30 - 11:30	Progress Reports: Colorado, New Mexico
11:30 - 1:00	Lunch Break
1:00 - 2:00	Discussion UC/Irvine Computer Program Adaptation Requirements Jim Dunning/Rich Everman Jim DeVere/Ron Bleed
2:00 - 3:00	Discussion of Next Steps and Development of Timelines
3:00 - 3:45	Discussion of Evaluation Form
3:45 - 4:00	Adjournment

Articulation Project
Advisory Committee Meeting
Beavery Run Resort
August 23, 1985

MINUTES

Attending: Alfredo de los Santos, Jim Devere, Jim Dunning, Allen Eddy, Jennifer Franz, Dorothy Knoell, Jim McLaughlin, Mary Ontiveros Len Overturf, Julie Richwine, Irene Wright.

WICHE Staff: Martha Romero, Katy Wogan

ABSENT: David Groth

Maricopa: Jim DeVere, Manager Programming
Maricopa Community College District

The evaluation of Maricopa's computer system philosophy has, like most programs gone through several states:

1) scientific function - numerical data analysis, etc.
2) business function - payroll, financial and, admissions, etc.
3) information function - use of machines to assist people and solve problems.

New developments at Maricopa that address information function:

1) Voice command (touch tone phone) for phone-in registration of continuing students and students already admitted
2) Degree audit system to include:
   - course equivalency guide
   - curricula management system interfacing data bases of all 7 colleges
   - method for assessing student progress toward degree
   - graduation check
   - interface with other functions (business, research)

To accomplish this function Maricopa has:

1) Completed thorough evaluation of ASSIST - identified common data elements (WICHE project)

2) Worked with League of Innovation task force on developing student information systems components

3) Entered into three-year and five-year contract with Digital Corporation for hardware (10 Digital VACs, all able to communicate) and Information Associates (a commercial software house) for development of integrated student information system software. Technical experts from both organizations will work on site at Maricopa during the contract period.

Learnings during project participation time period:

1) Staff time necessary to support a system is an important consideration.

2) Data entry should be level closest to user (e.g. voice registration).

3) Data entry can be 99% on-line driven. One person at district level will enter articulation agreements developed at campus level.

4) For an integrated system, data elements must be included in such a way that impact to existing systems is minimal and yet makes use of system elements already operational.

5) Process used in planning for integrated degree audit system includes:
   a) evaluate existing systems ASSIST part of this process
   b) Develop preliminary design - define product outcomes
   c) Pre-documentation design phase and test scope of product
   d) Develop program - create and document program
   e) Enter data (at Maricopa DAS data entry should begin by September 15, 1985)
   f) Pilot use of system
   g) Evaluate use and re-fine program

Colorado: Allan Eddy, Director of Administrative Services
Colorado State University

1) Conducted thorough evaluation of ASSIST as a way of deciding whether to use stand alone system such as ASSIST or integrate articulation information into mainframe function that interacts with other student information system elements.

Consideration in making decision included;

1) defining the difference between information and data - every higher education system now has data but not every institution is good at providing information.

2) Information delivery must be to lowest level of user and must be packaged so that people make the transition to using non-print media.

3) Safeguards must be built-in to system both in retrieval and in update mode so that information can be provided to students, faculty and administrators; yet, all can make on-line updates as appropriate (e.g. release on holds/stops by admissions).

4) Analysis of student use of system - students access system from 7 p.m. to midnight.

The decision made is to include articulation functions in the integrated student information system on a mainframe - in this case an IBM 4381 using IDMS/R software. CSU has entered into 2 1/2 to 3 year contract with a software house, Systems and Computer Technology. In developing the RFP for the software contract, CSU listed the information needed to be included (used ASSIST elements for some of this) and in almost every area a comparison of the student file with some other existing program was necessary.

It is clear that to be effective integrated system must include:

- performance evaluation component that includes comparisons across programs
- internal/external articulation (not only articulation between schools but also between departments/locations in the same institutions)
- complete course equivalency guide

Learnings:

Three-year time frame necessary from initial commitment to the process to development of system.

The course equivalency guide and degree audit systems necessitate that other programs be in place if an integrated system is desired.

Regardless of system, one must prepare all action for a major change in the advisory process.

Project helped focus on the problems and alternative solutions possible and provided human resources across the participating states. For example, the UC/I discover - or re-discovery - of education subject numbers (ESN) helped all states in teaching current staff about how states can use language that is translatable.

While four-year and two-year institutions approach articulation from different perspectives, common ground exists for each sector to help the other.

California - Jim Dunning, Director of Admissions
University of California, Irvine

The committee was reminded that California has addressed articulation issues for many years and articulation as a process is not the problem. The problem is how to disseminate articulation information in the complex California postsecondary environment.

ASSIST began as a degree audit system for use at UC/I. Then, its usability for providing information to community college student was discovered.

Since that time, ASSIST has been developing in response to considerable outside pressure/support. Among the "pressure points" have been WICHE, the governor, the legislature, and the California postsecondary sectors. Money for ASSIST has been identified in the governor's budget and in the budgets for 5 of the 13 transfer centers being implemented in California. University of California will use ASSIST on 8 campuses and California State on 9. In addition some community colleges will have their own ASSIST centers in addition to the transfer centers. Private institutions such as USC also interested in joining in.

The decision to use NCES taxonomy, the education subject numbers (ESN) which refer to topics not programs is very useful for identifying courses with different course name that cover similar material. In ASSIST, the ESNs will allow people to access courses not by title but by subject matter.

In the coming year, $139,000 budget is needed to support ASSIST. Among the expenses are cost of a system administrator and technical support of .5 FTE programmer. Plans now are for a master data base to be duplicated at UC/I once a year and disseminated to all locations/users. Each site, however, will be responsible for developing and maintaining their own data base.

Learnings:

- Discussion with programmers in other states has helped ASSIST refine its identification of needed data elements.
- a willingness to decentralize the SIS capacity is needed to operationalize stand alone systems like ASSIST
- flexible staffing in the data processing capacity is necessary
- success is assured when each participant institution can have ownership of their own process
- flexibility of advisory staff in promoting widespread use of the system by students takes time

New Mexico - Jim McLaughlin

Although project technically not successful in New Mexico some valuable learnings occurred, specifically:

Since inception of the project, New Mexico has not had continuity in either BEF leadership or staff support or four-year institution top academic administration staff.

For collaboration among institutions to succeed several components are necessary. Among them are:

- a stable political environment both at the governance level and in the top leadership of the institutions. In New Mexico stability has existed at the registrar level but not at presidential or top academic administrative levels; the only visible articulation product was produced by the New Mexico American Association of Collegiate Registrars and Admissions Officers (NMAACRAO).

- inability to solve problems of ownership of articulation project results; lead to a preoccupation with critiquing the computer system model rather than with a concentration on solving the real acdemic problems (among the real issues turfdom of institutions).
- political instability results in missed opportunities to help students.

Secondary projects:

Arizona - Alfredo de los Santos, Vice Chancellor of Education Development
Maricopa Community College System Office

Irene Wright, Articulation Specialist
Maricopa Community College System Office

Higher education structure in Arizona includes one governing board for the three universities and one state board for community colleges and a locally elected governing board for each of the nine community college county based districts. Unlike other states, in Arizona 40-50% of university students are transfer students; in education 70-80% are transfers; in engineering 40-50% are transfer students. Some students enroll in three community colleges at one time or at a community college and university simultaneously. Therefore, the climate in Arizona is very supportive of articulation.

Academic Program Articulation Steering Committee, chaired by Alfredo in past year accomplished six of the nine goals delineated in the Articulation Handbook. New chair is Vice President Kinsinger of Arizona State University. As a result of this top administrative level steering committee significant changes have occurred. Among them:

1) There is good cross representation of two-year and four-year faculty on articulation task forces.

2) The President of the Northern Arizona University in Flagstaff has given directive that each NAU degree ganting department develop an articulation check list with all community colleges in the state.

3) University of Arizona and Pima Community College district have developed a better working relationship including joint advising sessions for students.

4) Arizona State University and Maricopa have agreed to an articulation specialist exchange. Irene Wright, the Maricopa Articulation Specialist whose position has been supported in part with WICHE funds will be spending several days a week in the office of the President at Arizona State University and her counterpart at ASU will be in the Maricopa office.

5) Articulation task forces are used as an early warning system that reaches all levels of administration in a timely fashion.

The Faculty Handbook developed with project funds has been piloted with 8 task forces, evaluated and updated. Wherever possible the task force groups tried to align with existing groups addressing transfer issues.

Revised Handbook changes include:

1) upgrade of language used - some complained first edition was too elementary

2) a lead person for each task force is identified

3) an explanation of how a task force works is included

4) Rather than having the task force chair be responsible liaison for updating the course equivalency guide (CEG), the CEG coordinator at each institution is responsible for communicating to the state CEG editor. Mailing labels are provided to the chairs so that all persons, at each administrative level, who have an interest in reviewing the meeting agendas receive agendas, as well as minutes following the meeting.

California - Dorothy Knoell, Postsecondary Education Administrator
California Postsecondary Education Commission

Problems of early identification of potential transfer students, especially minority students, has been addressed in state budget for the past two years. Each year the project has been vetoed by the governor. Specially, the recommendation has been to expand the early identification process set up in LA district in other state supported community colleges. However, in the midst of continuing declining student enrollments, the outside influence of Ford Foundation and WICHE project has created a state wide change in attitudes about the transfer process. As a result, transfer centers are being implemented across California and ASSIST is a cornerstone of the transfer centers. The dilemma remains how to use computers to facilitate transfer, preserve the human interaction component needed and thereby ward off state level mandates regarding articulation since such mandates could destroy flexibility necessary to successfully serve individual students.

The use of ASSIST as an early identification strategy is part of pilot at LA Harbor Community College. With WICHE project funds, the LA Harbor Community College data base will include not only course transfer information from UC/I but also from California State/Dominguez Hills and California State/Long Beach.

Colorado - Mary Ontiveros

Colorado operates in an environment where the legislature has set caps for in-state students at each of the major four-year institutions. CSU has set a priority to increase the number of minority students it admits. Three way contracts are one way to facilitate transfers from the major urban community colleges in Denver and reserve space for them at CSU within the caps set by the legislature.

Project included:

1) Agreement reached between CSU and CCD and outlined in Memorandum of Understanding.

2)- Contracts designed to be signed by CSU representative; CCD representative and individual students.

3) Pilot promotion of contracts both at CCD and area high schools.

4) Four students have signed the contracts this spring - more anticipated in 85-86, the first full year.

5) Campus visitation days designed specifically for transfer students have been instituted.

6) Colorado Commission on Higher Education has learned of contract and the Commission wants to use contract as condition of transfer - in other words, students state-wide would be required to sign contract as condition of transfer/admission to four year institutions. Impact of this is not clear at this point. While the process could be a help; it could also become an impediment to transfer.

New Mexico - Jim McLaughlin

Problems with the project in New Mexico have already been discussed above.

As a secondary project, New Mexico had agreed to develop articulation agreements in allied health, business, computer science, engineering technology and agriculture. Unlike Arizona, where community colleges are a significant feeder to the four-year institution, the New Mexico community colleges are perceived as viable funder systems to the four-year institutions. As a result, the four-year institutions are quite resistive to articulation agreements on any basis other than an individual, student-by-student basis. (Copies of letters in the file document this attitude).

However, the BEF did get approved another NMAACRAO prepared document, Guidelines for Improving Articulation Between Community/Junior and Senior Colleges outlining guidelines for improving articulation.

A meeting of articulation committees was sponsored by WICHE in Santa Fe in July, 1984 and the state coordinators for the other three project states served as presentors at the initial meeting. As a result, drafts of articulation agreements currently exist in agriculture, business, engineering, and allied health.

Evaluation Discussion

Jennifer Franz, the project evaluator, asked what impact WICHE project money had. State coordinators agreed that it is important to distinguish impact of the project and the impact of the money. The money distributed to the states was modest compared to the project's importance and the results from the credibility and opportunity to collaborate provided by participation in the WICHE project.

Specific questions were then responded to as shown below.

1) What did your institution get out of the WICHE project?
   - Ability to share with other states and focus on solutions.
   - WICHE helped states re-focus.
   - If not for WICHE, ASSIST would still be mom/pop operation at UC/I.
   - WICHE provided momentum/vehicle for collaboration.
   - In California a powerful alliance was formed between WICHE, CPEC, UC/I and LACCD.
   - ASSIST Prospectus gave credibility to the project and was of immense use.
   - The project involved an incredible number of academic professionals in articulation.

2) What do you think your state got out of the WICHE project?

   - Increased the number of academic people who were involved in decisions affecting their programs.
   - Formal relationship between Community College of Denver staff and minority staff at Colorado State University was more quickly establshed.
   - Staff in New Mexico was looking for a vehicle that could carry the 1983 legislative mandate regarding articulation and project did that.
   - Changed dialogue so that similar problems could be addressed in a more neutral setting that involved several states and institutions.
   - In California the transfer issue was obscure at the start of the project and WICHE contributed to the snowballing effect. CPEC raised the transfer issue to higher priority and the transfer centers were ultimately created.
   - The project supported the cooperative working together of higher education segments.
   - Timing of the project provided energy to get going, sooner faster and better.
   - Course prefix alignment was mandated in Arizona but WICHE nudged the institutions to coordinate course prefix priority with other articulation elements.
   - Interstate discussions helped institutions broaden their horizons about how degree audits could be generally more useful
   - The discussion about statewide articulation was broadened.
   - Watching UC/I struggle with the development of their system made all other state programmers involved better fighters.
   - Ease of access of on-line systems was re-emphasized.

3) Were there any aspects of the WICHE project that hindered you in your articulation efforts?

   - The project started after the start of the academic year and we lost ground in the first year.
   - The project added work to our schedule since we had more to consider but ultimately, the added work broadened our horizons.

4) If you had this to do over again, what would you do differently?

- Would define outcomes less rigidly so that projects could evolve. (Point was made, however, that project with less specifically defined outcomes could not be funded.)
- Define evaluation in the proposal as a process evaluation as opposed to the product evaluation.
- In New Mexico, contractural agreements among the various state participants might have helped.
- Make the outcomes less ambitious. (Disagreement here since some thought higher expectations yielded higher results.)
- Identify project over which participants have more control even if outcomes are less significant. Yet, as a result, deans and registrars were able to work together and if articulation is to be successful administrators and faculty must work together.

5) If you were giving advice to other institutions or states, what would you tell them that they should look out for or do differently?

- Institutions and states must understand the political nature of the influence base.
- It is critical to mobilize and get sanction from the academic community.
- The official blessing and involvement of top administrators from the institutions involved is essential. The involvement must be formalized and not left to chance conversations in social settings.
- Recognize that all states are different and allow for those differences when replicating a process.
- In some states students are hurt when guidelines become too rigid. In other states, guidelines are necessary to mobilize the institutions.
- Allow plenty of time to fail. From early failure ultimately come the successes.

6) What would you count as your biggest accomplishment in this project?

California

- Transfer centers funding and the pivotal role UC/I ASSIST will play in the transfer center functions.
- Consensus was reached about the shortcomings of the traditional process of articulation.
- collaboration of staff of California Postsecondary Education Commission, University of California/Irvine, and Los Angeles Community College District.

Arizona

- Creation of a statewide articulation steering committee (chaired by Vice Chancellor of Maricopa in first two years and next year chaired by VP of ASU.)
- Involvement of faculty in discussion of articulation with a format and clearly defined end project.

- Development of a degree audit system using the perspective of the institutions involved.

Colorado

- Process program went through to define contractual agreements.
- Involvement of faculty in the articulation process.

New Mexico

- Recognition of importance of momentum and the difficulty in maintaining momentum when staff turnover is high.
- Need for state to define articulation as a consumer/student issue.
- WICHE provided regional medium by which states could learn from each other.

7) Are there any plans for institutionalizing what this project has accomplished either in your institution or in your state? What are those plans?

- California - ASSIST is built in to transfer center functions and presentation about the system are scheduled at national meetings in the coming year.
- New Mexico - Will try to refocus and address persistence issues. Attracting minorities to admit is not the issue since state is largely minority but retaining students is an issue, and it is in the public interest to help students complete their program. Institutions need to recognize this.
- Arizona - Has institutionalized part of the process at the state level and this will continue indefinitely (articulation steering committee, course prefix allignment, two-year - four-year faculty committees). The degree audit system and other developing elements of an integrated system will be shared nationally at professional meetings.
- Colorado - Will continue marketing the contracts for greater student use. Colorado Commission of Higher Education has become interested in the contractual process but it is not yet clear what use the Commission will make of the process throughout the state.

8) General Coments.

A need exists to inform the SHEEO's about this project and to involve vocational educators in developing articulation agreements with the four-year sector.

The meeting closed with a general and heartfelt thank you from the project director to each state coordinator, the programmers and other advisory committee attendees. Congratulations were extended to the group for defining the project in such as way that their states and students benefited from the project.

A suggested was made that the group be convened in the later part of the year as part of the dissemination grant and this suggestion will be considered if funds are available.
MEETING ADJOURNED AT 4:00 P.M.

Articulation Project
Advisory Committee Meeting
Beaver Run Resort
Breckenridge, CO

August, 23, 1985

Location - "Peak 3"

Agenda

8:00 - 8:30	Continental Breakfast
8:30 - 9:30	Maricopa -- Student Infromation System Jim Devere Products: Technical Documentation Degree Audit System
9:30 - 10:00	Colorado -- Progress Toward Student Information System Allan Eddy
10:00 - 10:30	California - Progress Report of ASSIST Jim Dunning Products: Prospectus User Manual Technical Documentation
10:30 - 11:00	New Mexico - Progress Report on Computerization Jim McLaughlin
11:15 - 12:30	Secondary Products: -Faculty Articulation Manual Irene Wright -State Wide Articulation Process Alfredo de los Santos -California Statewide Articulation - New Development Dorothy Knoell -New Mexico Articulation Agreements Jim McLaughlin -Colorado Student Contracts Mary Ontiveros
12:30 - 2:00	Lunch - Spencers
2:00 - 4:00	Evaluation and Dissemination

Appendix G

HANDBOOK
FOR
ARTICULATION
TASK FORCES
1984-85

STATE OF ARIZONA

HANDBOOK

FOR

ARTICULATION TASK FORCES

1984-85

Developed by

Irene Wright, Facilitator
Academic Program Articulation Steering Committee

ACKNOWLEDGEMENTS

This handbook was developed for the "Improving the Articulation - Transfer Function Between Two- and Four-year Institution Project" directed by Dr. Martha Romero of the Western Interstate Commission for Higher Education (WICHE). The project was funded by the Fund for the Improvement of Postsecondary Education (FIPSE).

The efforts of the following individuals in the development of this document are greatly appreciated.

Drs. Mary Lou Mosley and Naomi O. Story
Instructional Designers, The Maricopa Community Colleges

Diana Elliott and Kathie Driscoll
1983-84 Interns, The Maricopa Community Colleges

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INTRODUCTION

On February 4, 1983, the Joint Conference Committee of the Arizona State Board of Regents and the Arizona State Board of Directors for Community Colleges established the Academic Program Articulation Steering Committee (APASC). The APASC was charged with planning and convening meetings of representatives from specific academic disciplines at the public universities and community colleges to discuss articulation of degree programs, curriculum, transfer of students, and other related topics. (see Appendix A, pages 11-14, for APASC Members, Goals and Organizational Relationships)

This handbook is designed to provide information on how to implement statewide postsecondary articulation. In addition, the chairperson's and members' responsibilities before, during, and after the meetings are outlined.

WHAT IS ARTICULATION?

Articulation is the process of developing a harmonious working relationship between two-year and four-year institutions. The result is agreements and/or mechanisms which ensure that students can readily transfer from one institution to another with minimal academic problems.

Why Is Articulation Important?

Articulation is important so that students who transfer among Arizona institutions experience minimal loss of credit within their programs of study.

What Is The Goal Of Articulation?

The goal of articulation is to serve transfer students by:

- Removing the transfer barriers and
- Providing accurate information on a timely basis to assist students in planning for transfer among community colleges and/or public universities within Arizona.

WHAT IS AN ARTICULATION TASK FORCE (ATF)?

An Articulation Task Force (ATF) consists of faculty members who represent their institution and their discipline. The ATF provides community colleges and public universities with a forum to cooperatively exchange articulation information on a timely basis. The issues discussed and the decisions and recommendations made by the ATF will directly influence student transfer.

How Is An ATF Established?

1. The APASC establishes an ATF or it delegates articulation responsibilities to an existing group.
2. The chief academic officer of each community college and public university identifies an ATF member.
3. The chief academic officer also submits a list of disciplines and Bachelor's Degrees related to the ATF.
4. The APASC schedules the first meeting for a new ATF and coordinates the inclusion of articulation issues into meetings of existing groups.
5. The APASC determines the articulation portion of the agenda for ATF meetings.
6. ATF members determine the other agenda items as well as the format, time, and location of subsequent meetings.

What are the Outcomes of ATF Meetings?

- Update of the Arizona Higher Education Course Equivalency Guide
- Exchange of University Advisement Checklists for Majors
- Resolution of certain transfer issues
- Summary of recommendations and decisions made related to articulation
- Summary of unresolved issues

WHAT ARE THE OFFICIAL ACTIVITIES OF THE ATF?

1. Facilitates the transfer of credits from the community colleges to the universities for students who have selected that discipline.

    a. Resolves the issues involved with accepting transfer credits to meet program requirements.

    b. Provides a mechanism for anticipating and/or resolving transfer issues.

2. Develops methods to communicate accurate information (_University Advisement Checklists for Majors_) to community college students regarding degree program requirements of the universities and the transferability of community college courses to those programs.

    e.g., Exchange _University Advisement Checklists for Majors_.

3. Reviews and updates the content of the _Arizona Higher Education Course Equivalency Guide_.

    Evaluates the content of specific courses in order to facilitate transfer among institutions.

4. Establishes a communication process for programmatic changes as they are under development.

    a. Identifies the impact of proposed programmatic changes under development at the community colleges or universities which may affect the transferability of credits.

    b. Identifies the impact on transfer students of recently approved community college and university course and/or program additions, modifications, and deletions.

5. Gives consideration to the possibility of common course prefixes, numbers, and titles.

6. Reports to the APASC and appropriate institution administrators.

    a. Summarizes recommendations and decisions related to articulation.

    b. Summarizes any issues that cannot be resolved.

ATF CHAIRPERSON

What Are My Responsibilities?

After your selection as chairperson, you will meet with the APASC facilitator. The facilitator will orient you and serve as a resource person. Your responsibilities include:

Before the Meeting

Arrange for meeting location, map, meeting break, host or no-host meals, parking, etc.

Collect, develop, and send meeting packets to ATF members 45 days prior to ATF meeting. (see Appendix B, pages 15-19 for samples)

Packets should include:

a. Meeting Announcement
b. Agenda
c. List of ATF members (current)
d. List of ATF Disciplines and Bachelor's Degrees
e. Handbook for Articulation Task Forces (new members only)

Send the agenda, including the date, time, and location to the Chief Academic Officers. (see Appendix C, pages 20-21 for names and addresses)

During the Meeting

Conduct the business identified on the agenda.

Ensure that edited pages of the Arizona Higher Education Course Equivalency Guide (CEG) which are acceptable are signed and dated by the appropriate community college and university ATF members. EVERYTHING MUST BE LEGIBLE. (see Appendix E, page 24)

Ensure that University Advisement Checklists for Majors have been exchanged. (see Appendix F, page 26)

Facilitate discussion related to articulation issues.

Ensure that notes regarding recommendations, decisions, and unresolved issues are recorded.

After the Meeting

Prepare summary of recommendations, decisions, and unresolved issues. (see Appendix D, page 22 for a sample)

Send copies of the following to the Chief Academic Officers. (see Appendix C, pages 20-21)

1. A list of ATF attendees

2. A summary of recommendations and decisions

3. A summary of any unresolved issues

Send copies of appropriate sections of the edited CEG to the CEG Coordinator at each institution. (see Appendix E, page 23)

Send the edited pages of the CEG to the CEG Editor. (see Appendix E, pages 23-24)

Participate as a spokesperson for the ATF in any further discussions or meetings related to unresolved articulation issues.

COMMUNITY COLLEGE ATF MEMBER

What Are My Responsibilities?

Before the Meeting

Read all materials provided by the ATF chairperson.

Consult with other faculty members at your institution concerning articulation issues or other agenda items for the ATF meeting.

Communicate concerns and issues with other ATF members so that articulation activities may be efficiently handled during the meeting.

Contact your ATF chairperson to add agenda items.

Send to all ATF members 30 days prior to the meeting the following:

> A copy of your institution's present and proposed course descriptions for ATF disciplines.

Get from your institution's CEG Coordinator a copy of the current printout(s) of the Arizona Higher Education Course Equivalency Guide (CEG) for the ATF discipline(s). (see Appendix E, page 24 for a sample)

Review the universities' evaluations of the courses listed on the CEG printout(s). Do the following:

1. Get a copy of your institution's official course descriptions for the ATF disciplines and the catalogs for the three state universities. (see your department chairperson or instructional dean)
2. Compare each of the course descriptions to the universities' course descriptions. (refer to Appendix E, page 25 for abbreviations used in the CEG)
3. Note any perceived mismatches of course evaluations on a copy of the CEG printout(s). EVERYTHING MUST BE LEGIBLE.

   e.g., A university has evaluated a community college course as DEC., E., or N.T. However, based on course descriptions, there is an equivalent university course. Note the equivalent course prefix, number, and credits on the copy of the CEG printout.

Send to the university ATF members 30 days prior to the ATF meeting the following:

1. The CEG printout(s)

2. The copy of the CEG printout(s) with the perceived mismatches noted and recommendations to change university evaluations

Review changes in course evaluations made by the university ATF members and your previous recommendations.

Come to the ATF meeting prepared to discuss any unresolved course evaluations and any concerns regarding the University Advisement Checklists for Majors.

During the Meeting

Your attendance is vital to the effectiveness of the articulation function.

The long range goals developed by APASC are the primary subject matter for meetings.

In addition, ATF members are encouraged to use this forum to exchange information related to transfer issues.

After the Meeting

The official dissemination of ATF recommendations and decisions is the responsibility of the ATF chairperson. However, as a representative of your institution, you are responsible to make sure that your colleagues and other school personnel concerned with articulation have the most current information.

e.g., Institution CEG Coordinator
Instructional Dean
Admissions Dean
Department Chairperson

UNIVERSITY ATF MEMBER

What Are My Responsibilities?

Before the Meeting

Read all materials provided by the ATF chairperson.

Consult with other faculty members at your institution concerning articulation issues or other agenda items for the ATF meeting.

Communicate concerns and issues with other ATF members so that articulation activities may be efficiently handled during the meeting.

Contact your ATF chairperson to add agenda items.

Send to all ATF members 30 days prior to the meeting the following:

> A copy of your institution's present and proposed course descriptions for ATF disciplines.
>
> University Advisement Checklists for Majors, effective the next academic year, for ATF Bachelor's Degrees. (see Appendix F, page 26 for a sample)

Do the following in consultation with the person from your college responsible for evaluating community college courses listed in the CEG.

Review the perceived mismatches and recommendations submitted by each community college ATF member.

1. Get your university's catalog and the course descriptions approved since the catalog was published.
2. Use the official course descriptions submitted by the community colleges and your course descriptions.
3. Evaluate perceived mismatches and determine acceptability of recommendations.
   - a. For acceptable recommendations, mark the changes on the original CEG printout(s). EVERYTHING MUST BE LEGIBLE.
   - b. For unacceptable recommendations, note an explanation on a separate sheet.

e.g., A community college has made a recommendation to change a university course evaluation based on the description in the current university catalog. However, the university has changed the course since the catalog was published.

Check that all other course evaluations in the CEG reflect the current courses offered by your institution.

1. For incorrect course evaluations, mark changes on the CEG printout(s). EVERYTHING MUST BE LEGIBLE.

2. Note an explanation on a separate sheet.

   e.g., A university has changed a course number without changing the CEG.

Sign, date, and print your institution's name on each page of the printout(s). EVERYTHING MUST BE LEGIBLE.

Write a memo to the ATF Chairperson and to the ATF member of that community college which includes the explanation for unacceptable recommendations and incorrect evaluations.

Make two copies of the edited and signed printout(s) and memos.

Send the original CEG printout(s) with changes and memo to the ATF chairperson.

Send one of the copies to the ATF member of that college and keep the other copy for your record.

During the Meeting

Your attendance is vital to the effectiveness of the articulation function.

The long range goals developed by APASC are the primary subject matter for meetings.

In addition, ATF members are encouraged to use this forum to exchange information related to transfer issues.

After the Meeting

The official dissemination of ATF recommendations and decisions is the responsibility of the ATF chairperson. However, as a representative of your institution, you are responsible to make sure that your colleagues and other school personnel concerned with articulation have the most current information.

e.g., Institution CEG Coordinator
Instructional Dean
Admissions Dean
Department Chairperson

APPENDIX A

MEMBERSHIP OF THE ACADEMIC PROGRAM ARTICULATION STEERING COMMITTEE, 1984-85

Robert Agrella
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Vice President for
Academic Affairs
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Wayne Gerken
Vice President for
Academic Affairs
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Jack B. Kinsinger
Vice President for
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Room 211
Arizona State University
Tempe, AZ 85287
965-4995

Sharon Wheeler
Assistant Director for Research
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255-3109

Odus V. Elliott
Associate Director for
Academic Programs
Arizona Board of Regents
Education Building
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Phoenix, AZ 85007
255-4082

* Chairperson

APPENDIX A

LONG RANGE GOALS OF APASC

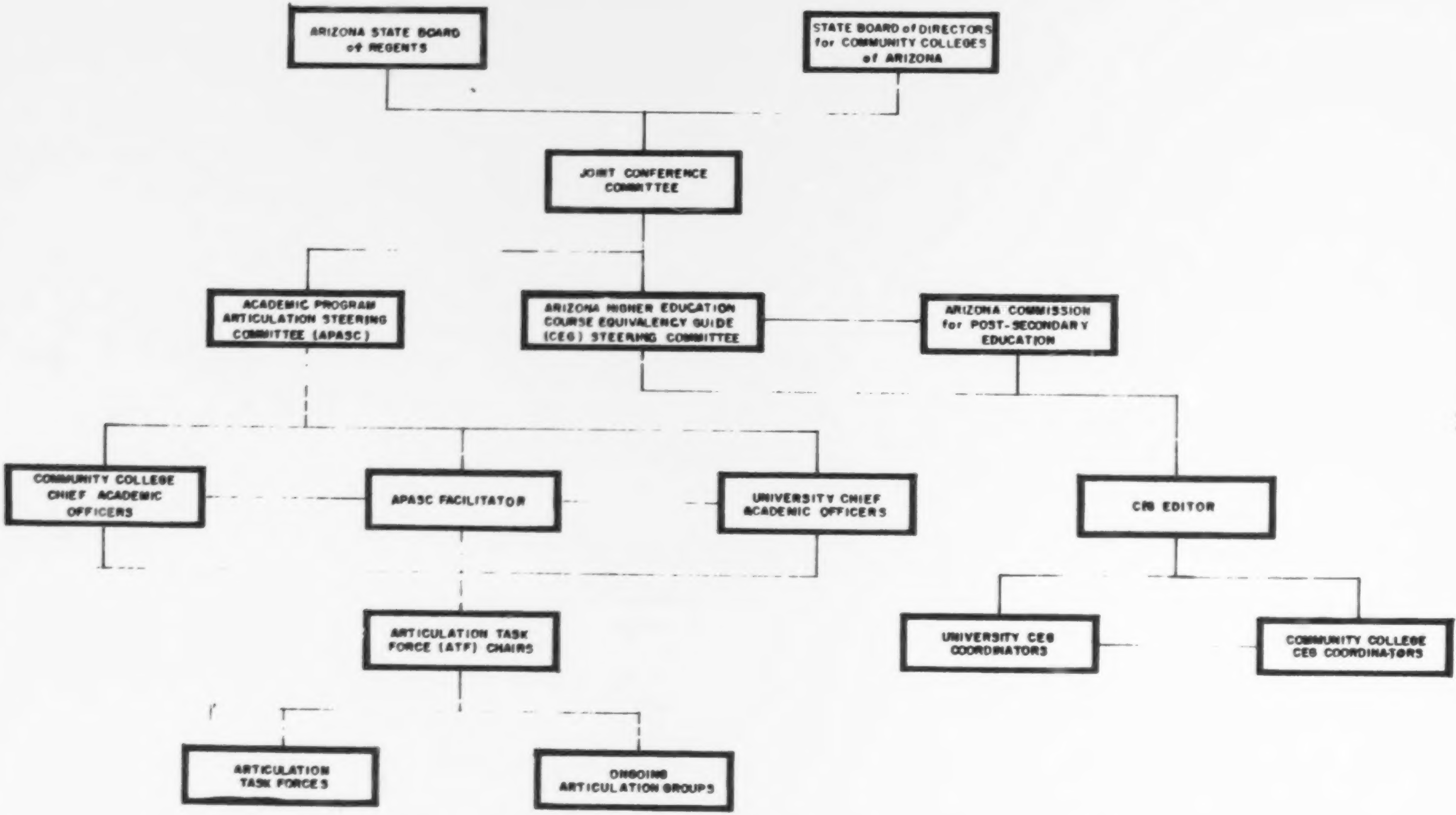
1. For every transfer discipline, establish an Articulation Task Force which:
    a. Facilitates the transfer of credits from the community colleges to the universities for students who have selected that discipline.
    b. Develops methods to communicate accurate information (*University Advisement Checklists for Majors*) to community college students regarding degree program requirements of the universities and the transferability of community college courses to those programs.
    c. Reviews and updates the content of the *Arizona Higher Education Course Equivalency Guide*.
    d. Establishes a communication process for programmatic changes as they are under development.
    e. Gives consideration to the possibility of common course prefixes, numbers, and titles.
    f. Sends a summary of ATF recommendations, decisions, and unresolved issues to the Academic Program Articulation Steering Committee and appropriate institution administrators.
2. Discuss the credit by examination policies of the community colleges and universities and identify the effects of those policies on students who transfer.
3. Develop methods to communicate the new university admission requirements to community college students and to identify and resolve any issues that may arise from the implementation of the new requirements.
4. Encourage each of the institutions within the state to develop procedures to review instances in which a student transferring to that institution loses academic credit. Any general recommendations that result of such reviews should be communicated to other institutions within the state.
5. Develop a standard definition of "transfer student" and recommend that the definition be used in research reports concerning the academic performance of students who transfer from the community colleges to the universities.
6. Consider the standardization of semester beginning and ending dates for all public universities and community colleges.

7. Encourage accurate, concise catalog descriptions for all programs and courses.

8. Encourage the development of Associate in Arts degree programs that will meet the general education requirements of the colleges of Liberal Arts or Arts and Sciences at the universities.

9. Encourage the development of two-plus-two programs or other specifically articulated programs for the bachelor's degrees offered by the professional colleges at the university.

APPENDIX A
APASC: ORGANIZATIONAL RELATIONSHIPS


ARIZONA STATE BOARD of REGENTS
STATE BOARD of DIRECTORS for COMMUNITY COLLEGES of ARIZONA
JOINT CONFERENCE COMMITTEE
ACADEMIC PROGRAM ARTICULATION STEERING COMMITTEE (APASC)
ARIZONA HIGHER EDUCATION COURSE EQUIVALENCY GUIDE (CEG) STEERING COMMITTEE
ARIZONA COMMISSION for POST-SECONDARY EDUCATION
COMMUNITY COLLEGE CHIEF ACADEMIC OFFICERS
APASC FACILITATOR
UNIVERSITY CHIEF ACADEMIC OFFICERS
CEG EDITOR
ARTICULATION TASK FORCE (ATF) CHAIRS
UNIVERSITY CEG COORDINATORS
COMMUNITY COLLEGE CEG COORDINATORS
ARTICULATION TASK FORCES
ONGOING ARTICULATION GROUPS

BEST COPY AVAILABLE

APPENDIX B

SAMPLE ATF MEETING ANNOUNCEMENT

DATE:

TO: ______________ Articulation Task Force Members

FROM: ______________, Chairperson

RE: ______________ Articulation Task Force Meeting

Your Chief Academic Officer has indicated that you are willing to serve as a member of the __________________ Articulation Task Force (ATF). A meeting has been scheduled for ______________, ____________ __, 198_ at ____________ _.M. It will be held at __________________, Arizona, and hosted by ________________________.

Information on parking, lunch, etc.

I have enclosed the following to prepare you for the meeting:

1. Meeting Agenda
2. ATF Membership List
3. List of ATF Disciplines and Bachelor's Degrees
4. Handbook for Articulation Task Forces (new members only)

In an effort to meet the ATF objectives listed in the Handbook, each member has specific responsibilities prior to the meeting. Directions for carrying out these responsibilities are listed in detail on pages 7-10 of the Handbook. A summary of your responsibilities follows:

30 days prior to the meeting

All ATF Members:

Send to all ATF members a copy of your institution's present and proposed course descriptions for ATF disciplines.

University ATF Members:

Send to all ATF members a copy of University Advisement Checklists for Majors, effective the next academic year, for ATF Bachelor's Degrees.

Community College ATF members:

Send to the university ATF members the following:

1. The CEG printout(s) for the ATF disciplines
2. A copy of the CEG printout(s) with the perceived mismatches noted and recommendations to change university evaluations

10 days prior to the meeting

University ATF members:

Send the original CEG printout(s) with changes and a memo to the ATF Chairperson and to the appropriate ATF member.

I am looking forward to a very productive Articulation Task Force meeting.

APPENDIX B

SAMPLE ATF AGENDA

____________________ Articulation Task Force

Date:

Time:

Place:

I. CALL TO ORDER

   A. Introductions

   B. Orientation

II. NEW BUSINESS

   A. New university admissions requirements

   B. *University Advisement Checklists for Majors* (Programmatic Changes)

   C. *Arizona Higher Education Course Equivalency Guide*

   D. Course numbering system for Arizona community colleges

   E. Common course numbers

   F. Use of computers in ATF disciplines

   G. Communication process

III. ATF ORGANIZATION

   A. Election of ATF Officers

   B. Plans for next meeting

IV. ADJOURNMENT

APPENDIX B

SAMPLE LIST OF ATF MEMBERS

______________ ARTICULATION TASK FORCE

ARIZONA STATE UNIVERSITY
Tempe, AZ 85287

ARIZONA WESTERN COLLEGE
P. O. Box 929
Yuma, AZ 85364

CENTRAL ARIZONA COLLEGE
Woodruff at Overfield Road
Coolidge, AZ 85228

COCHISE COLLEGE, DOUGLAS CAMPUS
Douglas, AZ 85607

EASTERN ARIZONA COLLEGE
Thatcher, AZ 85552

THE COLLEGE OF GANADO
Ganado, AZ 86505

GLENDALE COMMUNITY COLLEGE
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Glendale, AZ 85301

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Phoenix, AZ 85034

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Mesa, AZ 85202

MOHAVE COMMUNITY COLLEGE
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NAVAJO COMMUNITY COLLEGE
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NORTHERN ARIZONA UNIVERSITY
Flagstaff, AZ 86011

NORTHLAND PIONEER COLLEGE
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PIMA COMMUNITY COLLEGE
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Tucson, AZ 85709

RIO SALADO COMMUNITY COLLEGE
135 North 2nd Avenue
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SCOTTSDALE COMMUNITY COLLEGE
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Scottsdale, AZ 85251

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UNIVERSITY OF ARIZONA
Tucson, AZ 85721

YAVAPAI COLLEGE
1100 East Sheldon Street
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APPENDIX B

SAMPLE LIST OF DISCIPLINES AND BACHELOR'S DEGREES IN ARIZONA COMMUNITY COLLEGES AND UNIVERSITIES

for

Philosophy, Religious Studies Articulation Conference
(Philosophy and Religious Studies Articulation Task Force)

1984-85

Disciplines

AWC:	PHL	Philosophy
CAC:	PHIL	Philosophy
COCHISE:	PL	Philosophy
EAC:	PH	Philosophy
GANADO:	PHI	Philosophy
MCCCD:	PI RN	Philosophy Religious Studies
MOHAVE:	PHI	Philosophy
NAVAJO:		
NPC:	PHL	Philosophy
PIMA:	PHI REL	Philosophy Religion, Comparative
YAVAPAI:	PHI	Philosophy
ASU:	PHI REL	Philosophy Religious Studies
NAU:	PHL REL	Philosophy Religious Studies
UA:	PHIL RELI	Philosophy Religious Studies

Bachelor's Degrees

ASU:
- Bachelor of Arts
  - Philosophy
- Bachelor of Science
  - Religious Studies

UA:
- Bachelor of Arts
  - Philosophy
- Bachelor of Science
  - Religious Studies

NAU:
- Bachelor of Arts
  - Philosophy
- Bachelor of Science
  - Philosophy

APPENDIX C

CHIEF ACADEMIC OFFICERS, 1984-85

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Bruce Standfield
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APPENDIX C

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445-7300, ext. 202

APPENDIX D

SAMPLE FORMAT FOR ATF SUMMARY

(NAME OF THE ARTICULATION TASK FORCE)

_____/_____/_____
MO. DAY YEAR

ATTENDEES (Name and Institution)

SUMMARY OF RECOMMENDATIONS AND DECISIONS

SUMMARY OF UNRESOLVED ISSUES

APPENDIX E

INSTITUTION COORDINATORS FOR
COURSE EQUIVALENCY GUIDE (CEG)

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Registrar/Director of Admissions
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Mr. Richard E. Seals
Assistant to the Provost
COCHISE COLLEGE, SIERRA VISTA CAMPUS
Sierra Vista, AZ 85635 458-7110/
7113

Mr. Bruce Stanfield
Dean of Instruction or
Doneilleen Wisehart, Secretary
EASTERN ARIZONA COLLEGE
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APPENDIX E

SAMPLE COURSE EQUIVALENCY GUIDE (CEG) PRINTOUT

```
March 23, 1984                                                PAGE38
                          PIMA COMMUNITY COLLEGE
PCC                       A.S.U.                 N.A.U.               UofA
-ENGINEERING
ENG110(3)                 DEC(CEE)               E.                   DEC(CE)
ENG120(3)                 IND111(2)/             EGR170(2)            CE110(3)
                           ECE104(2)
ENG130(3)                 CEE241(3)              EGR270(3)            CE151(3)
ENG140(3)                 N.T.                   N.T.                 ECE101(3)
ENG210(3)                 CON221(3)/             E.                   CE214(3)
                           ECE210(3)
ENG220(3)                 ECE312(3)**            EGR252(3)            AME232(3)
**ASU - MUST HAVE GRADE OF B OR BETTER FOR TRANSFER.
ENG230(3)                 E.**                   EGR253(3)            CE217(3)
**ASU - ELECTIVE CREDIT EXCEPT FOR ENGINEERING MAJORS.
ENG240(3)                 DEC(ELT)               IE242(4)             ECE271A(3)
ENG245(3)                 TST200(3)              IE141(3)             ECE221(3)
ENG250(3)                 N.T.                   *DEC(TEC)            SIE270(2)
ENG260(3)                 N.T.                   N.T.                 ECE207(3)
```

APPENDIX E

COURSE ACCEPTABILITY ABBREVIATIONS

FOR

ARIZONA HIGHER EDUCATION COURSE EQUIVALENCY GUIDE (CEG)

N.T.	Not acceptable for transfer credit (Non-transferable)
XX-101	Accepted as being equivalent to that specific course at the College or University
XX-101*	Will transfer as an equivalent course, but at lower division credit
E.	"University - College Transfer Credit" A limited number accepted as fulfilling hours in lower division needed for graduation, but may not meet either departmental or general (liberal) studies credit. Check specific degree limitations. (Elective General University)
DEC.	"University - College Transfer Credit" A limited number accepted as credit in department indicated to fulfill lower division elective credit in major or minor area. Check departmental major. (Departmental Elective Credit)
GSC.	"University - College Transfer Credit" A limited number accepted as fulfilling credit hours in one of the general (liberal) studies areas. Check degree requirements. (General Studies Credit)
Tech	Technology - Refer to University of Arizona general transfer statement.
** or **	"Footnotes" indicates some additional information. This information will be located immediately following the individual course listing or at the end of a discipline listing.
U/E	Course currently being evaluated, but evaluation process has not been completed at the time of printing.
/	Or
&/(comma)	And

BEST COPY AVAILABLE

APPENDIX F
SAMPLE UNIVERSITY ADVISEMENT CHECKLIST FOR MAJORS

ARIZONA STATE UNIVERSITY
SCHOOL OF ENGINEERING

CURRICULUM CHECK SHEET

Catalog: [illegible]
Degree BSE

Name_______________ SS# ___-__-___
Address_______________

PREENGINEERING 3 NON-DEGREE CREDITS (*See General Catalog for Univ. English Proficiency Requirements*)	Hrs Hr	Cr Tr	Trans From	Gr
ENG 101 English	3			
ENG 102 or 105 English	3			
MAT 115 Alg & Trig	4			
PHY 111, 113 or PHY 101	4			

I. GENERAL STUDIES (47 sem hrs)
(16 hrs min HUM & SS; 31 hrs min Sci & Math)

HUMANITIES AND FINE ARTS (*6 hrs min*)	Hrs Hr	Cr Tr	Trans From	Gr
BEHAVIORAL & SOCIAL SCIENCES (6 hrs min)				
ECN 201 Princ of Econ	3			
SCIENCE & MATHEMATICS				
CHM 116 Gen Chem	4			
PHY 115 Univ Phys	4			
PHY 116 Univ Phys	4			
PHY 117 Phys Lab	1			
PHY 118 Phys Lab	1			
MAT 290 Calc I	5			
MAT 291 Calc II	5			
*or MAT 270 Calc I (4)				
MAT 271 Calc II (4)				
MAT 272 Calc III (4)				
MAT 274 or ECE 380	3			
MAT 242 or ECE 382,384 or 386	2			
ECE 383 Prob & Stat	2			

Sub Total (I) __

II. ENGINEERING CORE (32 sem hrs)

ECE 102 Intro/Engrg	2			
ECE 104 Graphics	2			
ECE 122 Comp Prog	2			
ECE 210 Statics	3			
ECE 304 Elec Ntwks	4			
ECE 312 Dynamics	3			
ECE 313 Solids	3			
ECE 334 Elec Devices	4			
CHM 441 Phys Chem	3			
CHM 442 Phys Chem	3			
ECE 400 Engrg Comm	3			

Sub Total (II) __

*10 hrs only applicable to degree.

MAJOR BIOENGINEERING
Area of Emphasis_______________
Date of Anticipated Completion_______________
ASU Cumulative GPA ________ for ______ sem hrs
Transferred from_______________

III MAJOR (51 sem hrs)

	Hrs Hr	Cr Tr	Trans From	Gr Gr
AGB 435 Animal Physio	4			
CHE 331 Trans Phen	3			
or MAE 371 Fl Mecn (3)				
CHE 411 Biomed Engrg I	3			
CHE 412 Biomed Engrg II	3			
CHE 413 Physio Instru	3			
CHE 492 Chem Engrg Proj	2			
CHM 113 Gen Chem	4			
CHM 331 Gen Org Chem	3			
CHM 332 Gen Org Chem	3			
CHM 335 Chem Lab	1			
CHM 361 Princ of Biochem	3			
EEE 465 Clin Engrg I	3			
TECHNICAL ELECTIVES--16 sem hrs (2 courses of engrg sci and 1 of engrg design type content req'd)				

Sub Total (III) __

GRADUATION REQUIREMENTS
Regular Curriculum....130 sem hrs (plus preengineering and non-degree credits)

Total Upper Div. Hrs.________ (Minimum required: 42 sem hrs)

SEMESTER HOUR SUMMARY	Hrs/ASU	Tr Hrs	Total
I. GENERAL STUDIES			
II. ENGINEERING CORE			
III. MAJOR			
Total Program Hours			

Submitted by_______________ ________
Student Signature Date

Approved_______________ ________
Advisor Date

Approved_______________ ________
Department Chairman Date

Approved_______________ ________
Dean Date

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HANDBOOK

FOR

ARTICULATION TASK FORCES

1985-86

Developed by

Irene Wright, Facilitator
Academic Program Articulation Steering Committee

August 1985

ED512 6

ACKNOWLEDGEMENTS

This handbook was developed for the "Improving the Articulation - Transfer Function Between Two- and Four-year Institution Project" directed by Dr. Martha Romero of the Western Interstate Commission for Higher Education (WICHE). The project was funded by the Fund for the Improvement of Postsecondary Education (FIPSE).

The efforts of the following individuals in the development and revision of this document are greatly appreciated.

Drs. Mary Lou Mosley and Naomi O. Story
Instructional Designers, Maricopa County Community College District

1984-85 Articulation Task Force Members
Arizona Course Equivalency Guide Steering Committee

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INTRODUCTION

On February 4, 1983, the Joint Conference Committee of the Arizona State Board of Regents and the Arizona State Board of Directors for Community Colleges established the Academic Program Articulation Steering Committee (APASC). The APASC was charged with planning and convening meetings of representatives from specific academic disciplines at the public universities and community colleges to discuss articulation of degree programs, curriculum, transfer of students, and other related topics (see pages 18-21, for APASC Members, Goals, and Organizational Relationships).

This handbook is designed to provide basic information on how to implement statewide postsecondary articulation. In addition, the chairperson's and members' responsibilities before, during, and after the Articulation Task Force meetings are outlined.

WHAT IS ARTICULATION?

The definition of articulation used in this Handbook is "the process of developing ongoing communication and agreements between and among Arizona two- and four-year public postsecondary institutions." The articulation process is intended to ensure problem-free transfer from one institution to another.

Why Is Articulation Important?

Articulation is important so that students who transfer among these Arizona institutions do not experience problems such as loss of credits within their programs of study. In addition, articulation assists faculty and administrators among institutions to establish and to maintain communications and better working relationships which benefit students.

What Is The Goal Of Articulation?

The goal of articulation is to serve transfer students by:

- Resolving transfer problems
- Keeping communication channels open among faculty and administrators
- Providing accurate information on a timely basis to assist students in planning for transfer

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WHAT IS AN ARTICULATION TASK FORCE (ATF)?

An Articulation Task Force (ATF) consists of faculty members who represent their institution and their discipline. The ATF provides community colleges and public universities with a forum to cooperatively exchange articulation information on a timely basis. The issues discussed and the decisions and recommendations made by the ATF will directly influence student transfer.

How Is An ATF Established?

1. The APASC establishes an ATF or it delegates articulation responsibilities to an existing group.
2. The chief academic officer of each community college and university may appoint at least one ATF member. If more than one member is appointed from a community college district or a university, the chief academic officer will identify one person as the lead member.
3. The chief academic officer also submits a list of disciplines and bachelor's degrees related to the ATF.
4. The APASC schedules the first meeting for a new ATF and coordinates the inclusion of articulation issues into meetings of existing groups.
5. The APASC selects an APASC facilitator who coordinates activities and works with the ATFs.

How Does an ATF Work?

1. The APASC facilitator identifies a chairperson for a new ATF. Once an ATF is established, members determine the chairperson. Responsibilities are outlined on page 12.
2. The APASC facilitator identifies a host for the initial ATF meeting. Thereafter, the members determine who will host. Responsibilities are outlined on page 14.
3. The APASC recommends articulation items for the agenda. ATF members determine other agenda items as well as the format, time, and location of subsequent meetings.
4. The host Course Equivalency Guide (CEG) coordinator serves as a resource person for the ATF. Specific responsibilities of CEG coordinators are listed on pages 15 and 16.
5. The responsibilities of the CEG editor are outlined on page 17.

What are the Outcomes of ATF Meetings?

1. Update of the *Arizona Higher Education Course Equivalency Guide*
2. Exchange of *University Curriculum Check Sheets for Majors*
3. Recommendations for and/or resolution of transfer issues
4. Summary of recommendations and decisions related to articulation
5. Summary of unresolved issues

WHAT ARE THE OFFICIAL ACTIVITIES OF THE ATF?

1. Facilitates the transfer of credits from the community colleges to the universities for students who have selected that discipline.

    a. Discusses and makes recommendations and/or resolves issues involved with accepting transfer credits to meet program requirements.

    b. Provides a mechanism for anticipating and/or resolving transfer issues.

2. Develops methods to communicate accurate information to community college students regarding degree program requirements of the universities and the transferability of community college courses to those programs.

    e.g., Exchange University Curriculum Check Sheets for Majors (see page 31 for a sample).

3. Reviews and recommends changes to the Arizona Higher Education Course Equivalency Guide (see page 28 for a sample printout).

    Evaluates the content of specific courses in order to facilitate transfer among institutions.

4. Establishes a communication process for programmatic changes as they are under development.

    a. Identifies the impact of proposed programmatic changes under development at the community colleges or universities which may affect the transferability of credits.

    b. Identifies the impact on transfer students of recently approved community college and university course and/or program additions, modifications, and deletions.

5. Gives consideration to the possibility of common course prefixes, numbers, and titles.

6. Reports to the APASC and appropriate institution administrators (see page 24 for a sample format).

    a. Summarizes recommendations and decisions related to articulation.

    b. Summarizes any unresolved issues.

COMMUNITY COLLEGE ATF MEMBER

What Are The Responsibilities?

Before the Meeting

NOTE: If more than one ATF member has been appointed per community college district, the lead member is responsible for completing step 7 with his/her district ATF members and providing copies for them.

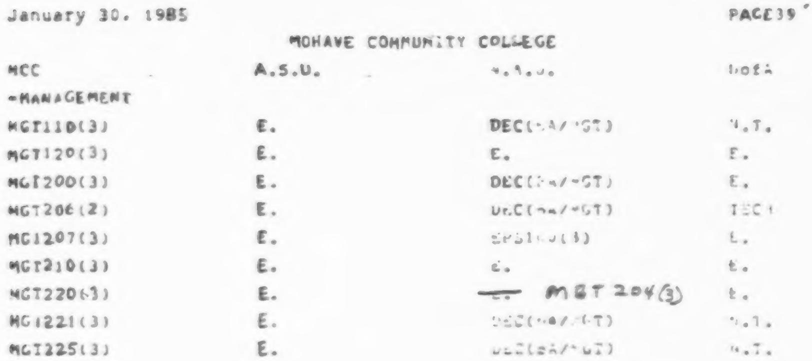
1. Review materials provided by the ATF chairperson.
2. Consult with colleagues concerning articulation issues or other agenda items for the ATF meeting.
3. Communicate concerns and issues with ATF members from other institutions so that articulation activities may be efficiently handled during the meeting.
4. Contact your ATF chairperson to add agenda items.
5. Come to the ATF meeting prepared to discuss university course evaluations and the University Curriculum Check Sheets for Majors.
6. Come to the ATF meeting prepared to discuss course or program changes, additions, or deletions that have been proposed or approved since the last ATF meeting.
7. Review the Course Equivalency Guide at least 30 days prior to the ATF meeting. Look at your institution's course prefixes assigned to the ATF (see Appendix G).
    - a. Get a copy of the current printout of the Arizona Higher Education Course Equivalency Guide (CEG) for course prefixes assigned to the ATF (see page 28 for a sample printout). The printout, which is updated throughout the year, can be obtained from your CEG coordinator (see page 27 for his/her name).
    - b. Review the universities' evaluations of the courses listed on the CEG printout by doing the following:
        1. Get a copy of your institution's catalog, together with any course updates made since it was printed, and the three state universities' catalogs. See your department chairperson or chief academic officer.

2. Compare each course description to the universities' course descriptions (refer to page 29 for abbreviations used in the CEG).

3. Write the recommended changes for course equivalencies next to the present evaluation. **CHANGES MUST BE LEGIBLE.**

   e.g., A university has evaluated a community college course as DEC (prefix), E., or N.T. However, based on the comparison of course descriptions, a university course appears to be equivalent. You would write the course prefix, number, and credits of the equivalent course on the CEG printout as a recommended change.

   See sample below:



January 30. 1985 PAGE39

MOHAVE COMMUNITY COLLEGE

MCC	A.S.U.	N.A.U.	U of A
-MANAGEMENT			
MGT110(3)	E.	DEC(MA/MGT)	N.T.
MGT120(3)	E.	E.	E.
MGT200(3)	E.	DEC(MA/MGT)	E.
MGT206(2)	E.	DEC(MA/MGT)	DEC(
MGT207(3)	E.	[illegible](3)	E.
MGT210(3)	E.	E.	E.
MGT220(3)	E.	~~E.~~ MGT 204(3)	E.
MGT221(3)	E.	DEC(MA/MGT)	N.T.
MGT225(3)	E.	DEC(MA/MGT)	N.T.

c. Send the following to each university ATF member (lead member, if more than one ATF member is listed) 30 days prior to the meeting.

   1. a cover letter (see page 30 for a sample)

   2. the CEG printout (with recommended changes, if any)

   3. a copy of the current course descriptions for the courses listed on the CEG printout.

   NOTE: Whether or not you recommend changes, send the printout and course descriptions to the university ATF member. He/she then can use the most current course information to review the evaluations of community college courses.

8. Discuss with your chief academic officer about volunteering to chair or host the next ATF meeting (see pages 25 and 26).

During the Meeting

1. Discuss agenda items.

2. Ask university ATF members any questions you have about the University Curriculum Check Sheets for Majors.

3. Answer questions about course or program changes, additions, or deletions that have been proposed or approved at your institution.

4. Before the end of the meeting, each ATF member or the lead member for a district shall:

   a. Sign and date the CEG printout only if changes are recommended.

   b. Obtain the signature and date of the university ATF member.

   c. Give a copy of the signed printout to the host CEG coordinator.

After the Meeting

The dissemination of the ATF summary is the responsibility of the ATF chairperson. The distribution of recommended CEG changes is the responsibility of the host CEG coordinator.

However, as a representative of your institution, you are responsible for making sure that your colleagues and other community college personnel concerned with articulation have the most current information.

e.g., CEG coordinator (see page 27)
Chief academic officer (see pages 25 and 26)
Admissions Director/Dean
Department/Division chairperson

UNIVERSITY ATF MEMBER

What Are The Responsibilities?

Before the Meeting

NOTE: If more than one university member has been appointed to the ATF, the lead member is responsible for completing steps 5, 6, and 7 with the other ATF members and providing copies for them.

1. Review materials provided by the ATF chairperson.

2. Consult with colleagues concerning articulation issues or other agenda items for the ATF meeting.

3. Communicate concerns and issues with ATF members from other institutions so that articulation activities may be efficiently handled during the meeting.

4. Contact your ATF chairperson to add agenda items.

5. Send to all ATF members a copy of your current University Curriculum Check Sheets for Majors for the bachelor's degrees assigned to the ATF (see Appendix G). This should be done 30 days prior to the meeting.

   If current Check Sheets are not available, send information on programmatic changes that have been made or are in the process of being changed since the last ATF meeting.

6. Review the Course Equivalency Guide (CEG) printouts, cover letter, and course descriptions sent by the 11 community college districts by doing the following with the person at your institution who is authorized to make CEG changes (see page 32 for a list of the colleges).

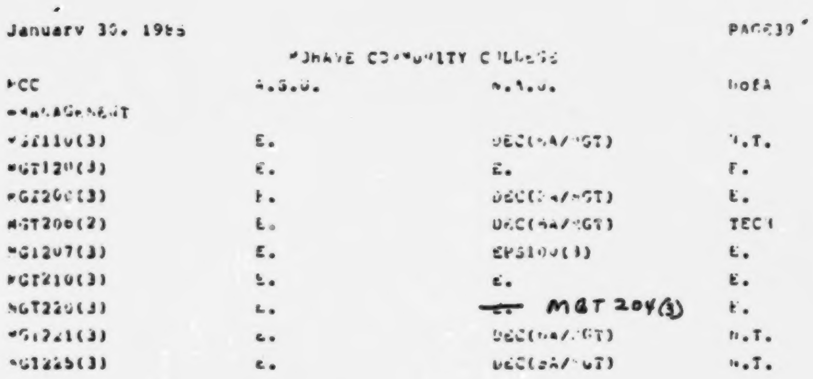
   a. Get your current catalog and information on courses added, changed, or deleted since it was printed.

   b. Check that course equivalencies in each community college printout reflect the courses currently approved for your institution. Do this by comparing university and community college course descriptions. You may encounter situations such as the following:

      e.g., A community college has made a recommendation to change a university course equivalency based on the description in the university catalog. However, the university has changed the course since the catalog was printed.

c. Write the recommended changes for course equivalencies next to the present evaluation. CHANGES MUST BE LEGIBLE.

See sample below.



January 30, 1985 PAGE39

MOHAVE COMMUNITY COLLEGE

MCC	A.S.U.	N.A.U.	U of A
MANAGEMENT			
MGT110(3)	E.	DEC(MA/MGT)	N.T.
MGT120(3)	E.	E.	E.
MGT200(3)	E.	DEC(MA/MGT)	E.
MGT206(2)	E.	DEC(MA/MGT)	TECH
MGT207(3)	E.	EPS100(3)	E.
MGT210(3)	E.	E.	E.
MGT220(3)	E.	~~E.~~ MGT 204(3)	E.
MGT221(3)	E.	DEC(MA/MGT)	N.T.
MGT225(3)	E.	DEC(MA/MGT)	N.T.

d. Send a copy of the printout with recommended changes to the ATF member or the lead member for a district prior to the meeting.

7. Come to the ATF meeting prepared to discuss:

   a. Course or program changes that have been proposed or approved since the last ATF meeting.

   b. University Curriculum Check Sheets for Majors.

   c. Recommended changes in course equivalencies.

8. Consider volunteering to chair or host the next ATF meeting.

During the Meeting

1. Discuss agenda items.

2. Answer any questions about University Curriculum Check Sheets for Majors.

3. Ask any questions about community college course and program changes, additions, or deletions.

4. Sign and date all community college printouts with recommended changes.

After the Meeting

The dissemination of the ATF summary is the responsibility of the ATF chairperson. The distribution of recommended CEG changes is the responsibility of the host CEG coordinator.

However, as a representative of your institution, you are responsible for making sure that your colleagues and other university personnel concerned with articulation have the most current information.

e.g., CEG coordinator (see page 27)
Chief academic officer (see pages 25 and 26)
Department/Division chairperson
College Dean

ATF CHAIRPERSON

What Are The Responsibilities?

After your selection as chairperson, you will meet with the APASC chairperson and the facilitator. The chairperson will orient you and the facilitator will serve as a resource person. You will be given handbooks to send to your ATF members before the first meeting.

Suggested responsibilities include:

Before the Meeting

1. If you are hosting the ATF meeting, arrange for meeting location, map, refreshments, host or no-host meals, parking, etc. Otherwise, contact the ATF host 45 days prior to the meeting to make the arrangements (see pages 14 and 33).

2. Collect and develop agenda items. Then, send the ATF agenda, including the date, time, and location, and the Handbook for Articulation Task Forces to the following:

    a. ATF members (see Appendix G)
    b. host CEG coordinator (see Appendix G)

3. Also, send the agenda to the chief academic officers (see pages 25 and 26 for names).

During the Meeting

1. Ensure that notes regarding recommendations, decisions, and unresolved issues are recorded.

2. Conduct the business on the agenda.

3. Ensure that University Curriculum Check Sheets for Majors have been reviewed and changes, if any, discussed.

4. Facilitate the discussion related to community college course and program changes, additions, or deletions since the last ATF meeting.

5. Facilitate discussion related to articulation issues.

6. Ensure that the host CEG coordinator has collected the community college CEG printouts with recommended changes.

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After the Meeting

1. Prepare a summary of the ATF recommendations, decisions, and unresolved issues (see page 24 for a sample).

2. Send a copy of the ATF summary to the following:

   a. ATF members (see Appendix G)
   b. Host CEG coordinator (see page 33)
   c. Chief academic officers (see pages 25 and 26)

3. Represent the ATF in any further discussions or meetings related to articulation.

ATF HOST

What Are The Responsibilities?

Before the Meeting

Suggested responsibilities include:

1. If you are not the chairperson, work with him/her in making the meeting arrangements.
2. Confirm the date and time for the ATF meeting.
3. Schedule a room for the ATF meeting, preferably one with tables. Provide access to a copy machine.
4. Make arrangements for ATF members to park.
5. Provide maps indicating meeting room and parking locations.
6. Refreshments and/or lunch are optional. Make necessary arrangements.
7. Make arrangements for a secretary to take notes for the ATF meeting.

   NOTE: Community college ATF hosts should contact their chief academic officer (see pages 25 and 26) if secretarial services are not available in their department.

8. Be sure to inform your CEG coordinator about the meeting.

HOST CEG COORDINATOR

What Are The Responsibilities?

Before the Meeting

1. Communicate with ATF host.

During the Meeting

1. As needed, provide information on the Course Equivalency Guide (CEG) process.
2. Collect from the community college ATF members (or the lead member from a district) the community college CEG printouts with recommended changes. SIGNATURES AND DATES MUST BE LEGIBLE.
3. Label the printouts:

   "Tentative: Pending Institutional Approval"

After the Meeting

1. Immediately following the meeting, send the CEG printouts to the CEG editor and the CEG coordinators for the community colleges and universities affected by the recommended changes (see page 27 for names).
2. When you receive the ATF summary send copies to all CEG coordinators and the CEG editor (see page 27 for names).

CEG COORDINATOR

What Are The Responsibilities?

Following every ATF meeting, the host CEG coordinator will send you community college CEG printouts with recommended changes. If no changes are recommended, you will not receive printouts.

Within 60 days following the meeting (date noted on printouts) or by the final date for updating the 1986-87 CEG, whichever comes first, do the following:

1. Obtain the signature and date of approval or disapproval from the community college or university person authorized to approve CEG changes. SIGNATURES AND DATES MUST BE LEGIBLE.

2. Cross out "Tentative: Pending Institutional Approval."

3. University CEG Coordinators: Send the CEG printouts to the CEG editor and the CEG coordinators for the community colleges affected by the changes.

   Community College CEG Coordinators: Send the CEG printouts to the CEG editor and the CEG coordinators for the university affected by the changes.

CEG EDITOR

What Are The Responsibilities?

Following every ATF meeting, the host CEG coordinator will send community college printouts with recommended changes. If no changes are recommended, you will not receive printouts.

1. When you receive approval of the recommended changes from both the community college and the university, make the changes in the CEG.
2. If you have not received approval from both the community college and university within 60 days after the meeting (date noted on printouts) or by the final date for updating the 1986-87 CEG, whichever comes first, make the recommended changes in the CEG.

APPENDIX A

MEMBERSHIP OF THE ACADEMIC PROGRAM ARTICULATION STEERING COMMITTEE (APASC), 1985-86

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255-4037

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Associate Director for
Academic Programs
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Phoenix, AZ 85007
255-4082

Facilitator: Irene Wright
Articulation Specialist
MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT
3910 East Washington
Phoenix, AZ 85034
267-4309

* Chairperson

APPENDIX A

LONG RANGE GOALS OF APASC

1. For every transfer discipline, establish an Articulation Task Force which:

    a. Facilitates the transfer of credits from the community colleges to the universities for students who have selected that discipline.

    b. Develops methods to communicate accurate information (University Curriculum Check Sheets for Majors) to community college students regarding degree program requirements of the universities and the transferability of community college courses to those programs.

    c. Reviews and updates the content of the Arizona Higher Education Course Equivalency Guide.

    d. Establishes a communication process for programmatic changes as they are under development.

    e. Gives consideration to the possibility of common course prefixes, numbers, and titles.

    f. Sends a summary of ATF recommendations, decisions, and unresolved issues to the Academic Program Articulation Steering Committee and appropriate institution administrators.

2. Discuss the credit by examination policies of the community colleges and universities and identify the effects of those policies on students who transfer.

3. Develop methods to communicate the new university admission requirements to community college students and to identify and resolve any issues that may arise from the implementation of the new requirements.

4. Encourage each of the institutions within the state to develop procedures to review instances in which a student transferring to that institution loses academic credit. Any general recommendations that result of such reviews should be communicated to other institutions within the state.

5. Develop a standard definition of "transfer student" and recommend that the definition be used in research reports concerning the academic performance of students who transfer from the community colleges to the universities.

6. Consider the standardization of semester beginning and ending dates for all public universities and community colleges.

7. Encourage accurate, concise catalog descriptions for all programs and courses.

8. Encourage the development of Associate in Arts degree programs that will meet the general education requirements of the colleges of Liberal Arts or Arts and Sciences at the universities.

9. Encourage the development of two-plus-two programs or other specifically articulated programs for the bachelor's degrees offered by the professional colleges at the university.

APPENDIX B

SAMPLE ATF MEETING ANNOUNCEMENT

DATE:

TO: _______________ Articulation Task Force (ATF) Members

FROM: _______________, Chairperson

RE: _______________ ATF Meeting

Your chief academic officer has indicated that you are willing to serve as a member of the ___________________ Articulation Task Force (ATF). A meeting has been scheduled for ______________, ____________ __, 198_ at _____________ _.M. It will be held at __________________, Arizona and hosted by _________________________.

(Information on parking, refreshments, etc.)

I have enclosed the following to prepare you for the meeting:

1. Meeting agenda
2. Handbook for Articulation Task Forces

In an effort to meet the ATF objectives listed in the Handbook, each member (or lead member in some cases) has specific responsibilities before the meeting. Directions for carrying out these responsibilities are listed in detail on pages 6-11 of the Handbook.

I am looking forward to a very productive meeting.

APPENDIX B

SAMPLE ATF AGENDA

____________________ Articulation Task Force

Date:

Time:

Place:

I. CALL TO ORDER

   A. Introductions

   B. Orientation

II. NEW BUSINESS

   A. Confirmation of ATF course prefixes and bachelor's degrees (Appendix G)

   B. University Curriculum Check Sheets for Majors (Programmatic Changes)

   C. Community College course or program changes, additions, or deletions

   D. Arizona Higher Education Course Equivalency Guide (Collection of CEG printouts with recommended changes in course equivalencies)

   E. Course numbering system for Arizona community colleges

   F. Common course numbers (Status at each community college or university if ATF has previously recommended common numbers)

   G. University Admissions Requirements

   H. Use of computers in ATF disciplines

   I. Communication between ATF meetings

III. ATF ORGANIZATION

   A. Selection of ATF chairperson and host for next meeting

   B. Date for next meeting

   C. Agenda items for next meeting

IV. ADJOURNMENT

APPENDIX B

SAMPLE FORMAT FOR ATF SUMMARY

____
(NAME OF THE ARTICULATION TASK FORCE)

_____/_____/_____
MO. DAY YEAR

ATTENDEES (Name and Institution)

______________ ASU
______________ Arizona Western
______________ Central Arizona
______________ Cochise College
______________ Eastern College
______________ Ganado
______________ Mohave CC
______________ Navajo CC
______________ NAU
______________ Northland Pioneer
______________ Pima CC

______________ UofA
______________ Yavapai College

Maricopa County CC District:
______________ Glendale CC
______________ Maricopa Tech
______________ Mesa CC
______________ Phoenix College
______________ Rio Salado CC
______________ Scottsdale CC
______________ South Mountain CC

SUMMARY OF RECOMMENDATIONS AND DECISIONS

SUMMARY OF UNRESOLVED ISSUES

DATE, CHAIRPERSON, AND HOST FOR NEXT MEETING:

APPENDIX C

CHIEF ACADEMIC OFFICERS, 1985-86

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726-1000, ext. 220

Charles Cunning
Vice President of
Instructional Services
CENTRAL ARIZONA COLLEGE
Coolidge, AZ 85228
723-4141

Joseph Roberts
Vice President for Instruction
COCHISE COLLEGE
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364-7943, ext. 212

Bruce Stanfield
Dean of Instruction
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428-1133, ext. 201

Joan Spencer, Chairperson
Divison of Academics
THE COLLEGE OF GANADO
Ganado, AZ 86505
755-3442

Jean Staten
Dean of Instruction
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934-2211

Alfredo G. de los Santos Jr.
Vice Chancellor for
Educational Development
MARICOPA COUNTY COMMUNITY
COLLEGE DISTRICT
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244-8355

Billy R. Harris
Acting Dean of Instruction
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APPENDIX C

CHIEF ACADEMIC OFFICERS, 1985-86

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Mary Briden
Dean of Instruction
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Provost/Vice President of
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Conrad Bensyl
Dean of Instruction
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Fred Stahl
Dean of Instruction
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Nils Hasselmo
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Affairs and Provost
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APPENDIX D

COURSE EQUIVALENCY GUIDE (CEG) COORDINATORS & EDITOR

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Division of Academics
THE COLLEGE OF GANADO
Ganado, AZ 86505 755-3442

Irene Wright
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MARICOPA COUNTY COMM. COLL. DISTRICT
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Dillard Broderick
Associate Dean of Supportive Services
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Eileen Ferguson
c/o Dean of Admissions and Records
Administration 316
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Administrative Assistant to the
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(313)

Joyce Janiga
COURSE EQUIVALENCY GUIDE EDITOR
Arizona Commission for
Post Secondary Education
1645 West Jefferson, Suite 127
Phoenix, AZ 85007 255-3109

APPENDIX D

SAMPLE COURSE EQUIVALENCY GUIDE (CEG) PRINTOUT

```
APRIL 19, 1985                                                      PAGE 25
                    CENTRAL ARIZONA COMMUNITY COLLEGE
CACC                     A.S.U.                 N.A.U.           U OF A
-ENGLISH COMPOSITION
+ENG100(3)               GSC                    N.T.                     ENGL100(3)
ENG101(3)                ENG101(3)              ENG101(3)                ENGL101(3)

ENG102(3)                ENG102(3)              ENG102(3)                ENGL102(3)

ENG121(3)                N.T.                   N.T.                     TECH

ENG122(3)                N.T.                   N.T.                     TECH

ENG129(3)                E.                     E.                       N.T.

ENG200(3)                DEC(ENG)               ENG207(3)                DEC(ENGL)

ENG205(3)                ENG213(3)              DEC(ENG)                 E.

+ENG220(3)               GSC/DEC(ENG)           DEC(ENG)                 ENGL308(3)*
```

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APPENDIX D

COURSE ACCEPTABILITY ABBREVIATIONS

FOR

ARIZONA HIGHER EDUCATION COURSE EQUIVALENCY GUIDE (CEG)

N.T.	Not acceptable for transfer credit (Non-transferable).
XX-101	Accepted as being equivalent to that specific course at the College or University.
XX-101*	Will transfer as an equivalent course, but at lower division credit .
E.	"University - College Transfer Credit." A limited number accepted as fulfilling hours in lower division needed for graduation, but may not meet either departmental or general (liberal) studies credit. Check specific degree limitations (Elective General University).
DEC.	"University - College Transfer Credit." A limited number accepted as credit in department indicated to fulfill lower division elective credit in major or minor area. Check departmental major (Departmental Elective Credit).
GSC.	"University - College Transfer Credit." A limited number accepted as fulfilling credit hours in one of the general (liberal) studies areas. Check degree requirements (General Studies Credit).
** or **	"Footnotes." Indicates some additional information. This information will be located immediately following the individual course listing or at the end of a discipline listing.
TECH	Technology. Refer to University of Arizona general transfer statement.
U/E	Course currently being evaluated, but evaluation process has not been completed at the time of printing.
/	Or
&/(comma)	And

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APPENDIX D

SAMPLE COVER LETTER: CEG PRINTOUTS

September 1, 1985

Dr. John Doe
Department of English
Arizona State University
Tempe, AZ 85287

Dear John:

The Arizona State University course equivalencies for ENG - English and ENH - English Humanities courses, which are listed in the most current printout of the Maricopa County Community College District (MCCCD) *Course Equivalency Guide* (CEG), have been reviewed. The review was done by the 1985-86 MCCCD English Articulation Task Force members.

In fulfilling my responsibility as MCCCD lead member (see pages 6 and 7 of the *Handbook for Articulation Task Forces 1985-86*), I have enclosed for your review a copy of the CEG printouts (ENG and ENH) (with recommended changes) or (with no recommended changes). In addition, I have enclosed a copy of the current course descriptions for the courses listed on the printout. Your responsibilities for reviewing MCCCD course equivalencies are outlined on page 9 and 10 of the Handbook.

Please feel free to call me at ________________ if you have any questions. My office hours are ______________________________. I am looking forward to working with you on the English ATF.

Thank you.

Sincerely,

James Smith, Lead Member
MCCCD English ATF

Enclosures

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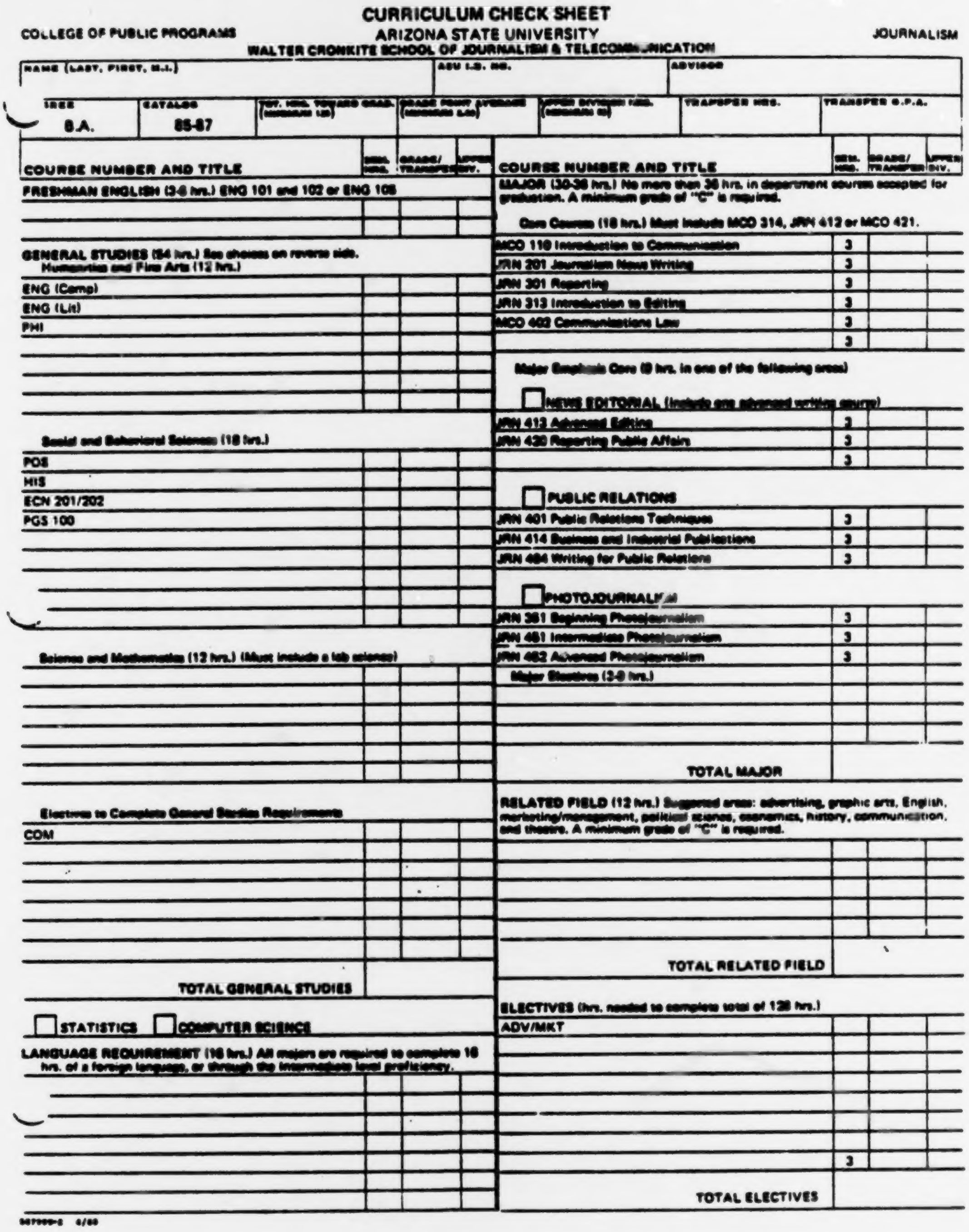
APPENDIX E
SAMPLE UNIVERSITY CURRICULUM CHECK SHEET FOR MAJORS



CURRICULUM CHECK SHEET

COLLEGE OF PUBLIC PROGRAMS
ARIZONA STATE UNIVERSITY
WALTER CRONKITE SCHOOL OF JOURNALISM & TELECOMMUNICATION
JOURNALISM

NAME (LAST, FIRST, M.I.)	ASU I.D. NO.	ADVISOR

DEGREE	CATALOG	TOT. HRS. TOWARD GRAD. (MINIMUM 128)	GRADE POINT AVERAGE (MINIMUM [illegible])	UPPER DIVISION HRS. (MINIMUM [illegible])	TRANSFER HRS.	TRANSFER G.P.A.
B.A.	85-87					

COURSE NUMBER AND TITLE	SEM. HRS.	GRADE/ TRANSFER	UPPER DIV.
FRESHMAN ENGLISH (3-6 hrs.) ENG 101 and 102 or ENG 105			
GENERAL STUDIES (54 hrs.) See choices on reverse side. Humanities and Fine Arts (12 hrs.)			
ENG (Comp)			
ENG (Lit)			
PHI			
Social and Behavioral Sciences (18 hrs.)			
POS			
HIS			
ECN 201/202			
PGS 100			
Science and Mathematics (12 hrs.) (Must include a lab science)			
Electives to Complete General Studies Requirements			
COM			
TOTAL GENERAL STUDIES			
☐ STATISTICS ☐ COMPUTER SCIENCE			
LANGUAGE REQUIREMENT (16 hrs.) All majors are required to complete 16 hrs. of a foreign language, or through the intermediate level proficiency.			

COURSE NUMBER AND TITLE	SEM. HRS.	GRADE/ TRANSFER	UPPER DIV.
MAJOR (30-36 hrs.) No more than 36 hrs. in department courses accepted for graduation. A minimum grade of "C" is required.			
Core Courses (18 hrs.) Must include MCO 314, JRN 412 or MCO 421.			
MCO 110 Introduction to Communication	3		
JRN 201 Journalism News Writing	3		
JRN 301 Reporting	3		
JRN 313 Introduction to Editing	3		
MCO 402 Communications Law	3		
	3		
Major Emphasis Core (9 hrs. in one of the following areas)			
☐ NEWS EDITORIAL (Include one advanced writing course)			
JRN 413 Advanced Editing	3		
JRN 420 Reporting Public Affairs	3		
	3		
☐ PUBLIC RELATIONS			
JRN 401 Public Relations Techniques	3		
JRN 414 Business and Industrial Publications	3		
JRN 484 Writing for Public Relations	3		
☐ PHOTOJOURNALISM			
JRN 351 Beginning Photojournalism	3		
JRN 451 Intermediate Photojournalism	3		
JRN 452 Advanced Photojournalism	3		
Major Electives (3-9 hrs.)			
TOTAL MAJOR			
RELATED FIELD (12 hrs.) Suggested areas: advertising, graphic arts, English, marketing/management, political science, economics, history, communication, and theatre. A minimum grade of "C" is required.			
TOTAL RELATED FIELD			
ELECTIVES (hrs. needed to complete total of 128 hrs.)			
ADV/MKT			
	3		
TOTAL ELECTIVES			

[illegible] 6/85

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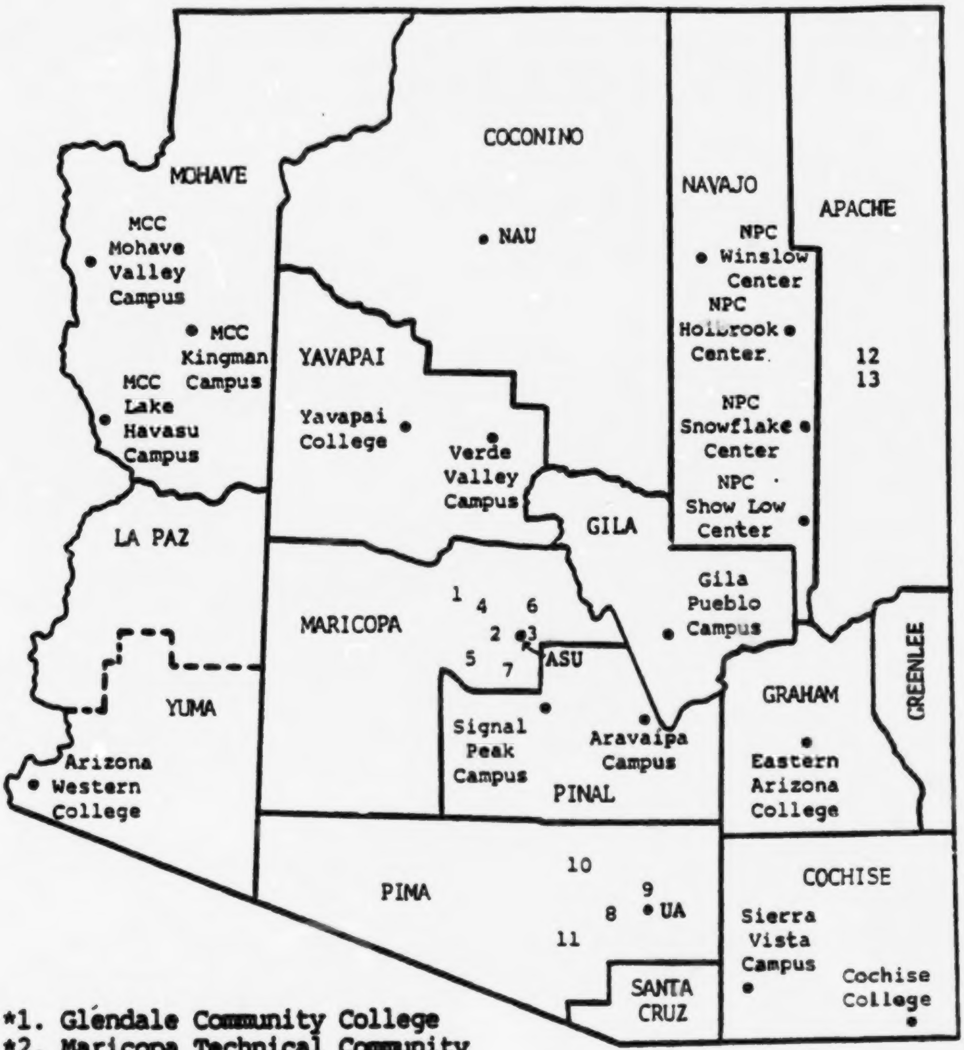
APPENDIX F

ARIZONA COMMUNITY COLLEGE DISTRICTS AND PUBLIC UNIVERSITIES


COCONINO
MOHAVE
NAVAJO
APACHE
MCC Mohave Valley Campus
NAU
NPC Winslow Center
NPC Holbrook Center
MCC Kingman Campus
YAVAPAI
12
13
MCC Lake Havasu Campus
Yavapai College
Verde Valley Campus
NPC Snowflake Center
NPC Show Low Center
LA PAZ
GILA
1
4
6
2
3
5
7
MARICOPA
ASU
Gila Pueblo Campus
CREENLEE
YUMA
GRAHAM
Signal Peak Campus
Aravaipa Campus
Arizona Western College
PINAL
Eastern Arizona College
10
COCHISE
PIMA
9
8
UA
11
Sierra Vista Campus
Cochise College
SANTA CRUZ

*1. Glendale Community College
*2. Maricopa Technical Community College
*3. Mesa Community College
*4. Phoenix College
*5. Rio Salado Community College - Centers throughout Maricopa County
*6. Scottsdale Community College
*7. South Mountain Community College
8. Pima Community College - Downtown
9. Pima Community College - East
10. Pima Community College - West
11. Pima College Community Center - Centers throughout Pima County
12. College of Ganado
13. Navajo Community College

ASU-Arizona State University
NAU-Northern Arizona Univeristy
UA-University of Arizona

* Maricopa County Community College District

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APPENDIX G

1985 - 86

SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

(aka State Sociology Articulation Conference)

Introduction

A Master List of Articulation Task Forces for the State of Arizona has been developed by the Academic Program Articulation Steering Committee. The Chief Academic Officer for each public postsecondary institution has provided the information for the Master List.

This section of the Master List includes the following as they pertain to the Sociology/Social Work ATF:

Course Prefixes
Bachelor's Degrees & University Academic Units
Members
Chronology

Meetings of the Sociology/Social Work ATF are scheduled periodically. Details of the next meeting are as follows:

Date:	November 1, 1985
Chair:	Jack Peterson Mesa Community College 1833 West Southern Avenue Mesa, AZ 85202 833-1261 (268)
Host:	Jack Peterson
Host CEG Coordinator:	Irene Wright Maricopa Community College District P. O. Box 13349 Phoenix, AZ 85002 267-4309

APPENDIX G

1985-86 SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

Course Prefixes

Institution	Course Prefix	
ARIZONA WESTERN:	SOC SSC	Sociology Social Science
CENTRAL ARIZONA:	SOC	Sociology/Social Science
COCHISE:	SOC SSV	Sociology Social Work
EASTERN ARIZONA:	SOC	Sociology
GANADO:	SOC	Sociology
MARICOPA DISTRICT:	SOC SWU	Sociology Social Work
MOHAVE:	SOC	Sociology
NAVAJO:	SOC SWO	Sociology Social Work
NORTHLAND PIONEER:	HUS SOC	Human Services Sociology
PIMA:	SOC SSE	Sociology Social Services
YAVAPAI:	SOC	Sociology

Institution	Course Prefix	
ASU:	SOC SWU	Sociology Social Work
NAU:	SOC SS SW	Sociology Social Science Social Work
UA:	SOC	Sociology

APPENDIX G

1985-86 SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

Bachelor's Degrees & University Academic Unit

University	Degree	Academic Unit
ASU:	Bachelor of Arts - Sociology	College of Liberal Arts and Sciences
	Bachelor of Science - Sociology	
	Bachelor of Social Work	School of Social Work
NAU:	Bachelor of Arts - Applied Sociology - Sociology	College of Social & Behavioral Sciences
	Bachelor of Science - Applied Sociology - Sociology	
UA:	Bachelor of Arts - Sociology	College of Arts & Sciences, Faculty of Social & Behavioral Sciences

APPENDIX G

1985-86 SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

List of Members

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(no member)
COLLEGE OF GANADO

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT

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PHOENIX COLLEGE
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Phoenix, AZ 85013
Phone: 264-2492 Ext. ________

RIO SALADO COMMUNITY COLLEGE
135 North 2nd Avenue
Phoenix, AZ 85003
Phone: 256-7722 Ext. ________

SCOTTSDALE COMMUNITY COLLEGE
9000 East Chaparral Road
Scottsdale, AZ 85253
Phone: 941-0999 Ext. ________

* Chair
# Host
*# Chair & Host
+ Lead Member

APPENDIX G

1985-86 SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

List of Members (Cont'd.)

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DISTRICT (cont'd.)

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Phone: 537-2976

+ Steve Schneider
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Phone: 445-7300

* Chair
# Host
*# Chair & Host
+ Lead Member

APPENDIX G

SOCIOLOGY/SOCIAL WORK ARTICULATION TASK FORCE

Chronology

1983-84

Date:	November 18, 1983
Chair:	Jack Peterson, Mesa Community College
Host:	Jack Peterson, Mesa Community College

1984-85

Date:	November 2, 1984
Chair:	Jack Peterson, Mesa Community College
Host:	Jack Peterson, Mesa Community College

1985-86

Date:	November 1, 1985
Chair:	Jack Peterson, Mesa Community College
Host:	Jack Peterson
Host CEG Coordinator:	Irene Wright, Maricopa County Community College District

Draft

PROPOSAL

FOR

STATEWIDE ON-LINE COURSE EQUIVALENCY GUIDE

State of Arizona

Submitted
by

Course Equivalency Guide Steering Committee

July 1, 1985

COURSE EQUIVALENCY GUIDE

Background

The Arizona Higher Education Course Equivalency Guide (CEG) was created in 1972 to facilitate the transfer of credits among Arizona public postsecondary institutions. The CEG is used to determine the equivalency of Arizona community college courses to those at the three Arizona state universities. The community college courses and credits are listed alphabetically by course prefix and number in ascending order. Course equivalences are indicated using the abbreviations identified in the CEG.

The CEG is under the jurisdiction of the Course Equivalency Guide Steering Committee, a committee established by a Joint Conference of the Arizona Board of Regents and the State Board of Directors for Community Colleges of Arizona. The CEG, which is published annually by the Arizona Commission for Postsecondary Education, is stored on a word processor in the ASU College of Liberal Arts. ~~Registrar's office~~. A CEG Editor is employed for a one-year term by the Commission. CEG Coordinators at each of the public postsecondary institutions submit changes to the Editor who distributes updated printouts of the CEG.

Limitations of the Current System

1. Distribution of CEG information is untimely and inadequate.

   a. The CEG is out-of-date before it is distributed. Since the deadline for entries to the CEG is early April and the CEG is distributed July 1, the updated CEG is not available for early registration. In addition, institutions add and modify courses through June and these changes are not reflected in the CEG for another year. Thus, course equivalencies listed in the CEG may not reflect listings in the new catalogs.

   b. Students generally do not have easy access to the printed CEG.

2. The CEG printed format is limiting.

   a. CEG users have difficulty identifying courses because only course prefix and number are included. The current system cannot be expanded. In addition, the CEG does not contain a reference list for community college or university course prefixes.

   b. Course equivalencies are not shown between community colleges (e.g., Pima to Maricopa), between universities (e.g., ASU to UA), or from universities to community colleges (e.g., NAU to Yavapai). As a result, faculty do not have sufficient tools to ensure consistent evaluations.

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c. The CEG does not ~~consistenly~~ consistently identify community college courses that would satisfy either the new university admission requirements or the university Liberal Studies Requirements.

d. The CEG does not include a system for tracking course evaluations. In addition, historical information is not available in the CEG to insure that courses are accepted for transfer as they were evaluated in the year they were taken.

e. Footnotes do not follow a standard form.

f. Course acceptability abbreviations are not used consistently. For example, N.T. (not transferable) may mean that a course is not transferable for any undergraduate degree at the university. On the other hand, N.T. may mean that the course ~~it~~ is not transferable only for the degrees under the jurisdiction of the course evaluator.

3. Procedures are not documented for maintaining the CEG.

a. Procedures for the CEG Editor and Coordinators are not defined. As a result, community college and university coordinators do not systematically update the CEG to include approved catalog changes.

b. A new Editor is hired each year. Therefore, the process lacks continuity and efficiency.

Annual Costs

Minimum funding for the CEG is appropriated by the Arizona State Legislature. The distribution of the funds for 1984-85 is as follows:

CEG Editor Salary (Half-time, 12 months)	$ 6,010
Employee-Related Expenses (7.5%)	460
Travel	30
Printing	2,500
Computer Services at ASU	1,500
TOTAL	$ 10,500

The costs itemized above do not include the salaries of the Community College and University CEG Coordinators, faculty evaluators, secretarial support, nor supplies such as paper and postage. These costs are estimated to exceed $100,000~~.00~~.

RECOMMENDED SOLUTIONS

Based on the limitations of the current system, the CEG Steering Committee proposes that a statewide on-line enhanced CEG system be developed. This new system would provide the following improvements:

1. All Arizona public postsecondary institutions could enter their changes to the CEG on-line and, thus, have immediate access to a more current and accurate CEG for early registration. Also, this on-line system could eliminate excessive postage, paper, and paper handling costs as well as improve the turn-around time for course evaluations.

2. The system could provide access to current information resulting in a wider distribution to students, educators, and administrators throughout the year.

3. In addition to the information in the current CEG (course prefix, number, and credits), the on-line system could include course titles, descriptions, and prerequisites or corequisites and other pertinent information. Optional formats would be available for faculty to assist in consistent evaluations, such as showing the equivalencies of courses from one community college to another, one university to another, and one university to a community college.

✓ 4. A system for tracking the status of course evaluations could be incorporated so that coordinators could more effectively ~~moniter~~ MONITOR the CEG. Historical information could be available in the CEG so that courses would be accepted for transfer as they were evaluated in the year they were taken.

5. The CEG could identify community college courses that satisfy the new university admission requirements and the university Liberal Studies Requirements.

6. Procedures for maintaining the new system could easily be documented on-line and would include responsibilities for the coordinators so that the CEG could be systematically updated as catalog changes were approved. Footnotes and course acceptability abbreviations and usage could be standardized and documented on-line. The new system should be planned to allow for expansion.

ESTIMATED COSTS

The attached survey was sent to the three universities and eleven community college districts in Arizona. Responses to the survey were received from all institutions.

A review of the responses has been made. As a result, the following "estimated" costs are provided. It is understood that more definitive costs can be provided upon completion of the following:

1. defined specifications
2. analysis of the specifications
3. selection of systems software

	One-Time Costs	Annual Costs
I. DEVELOPMENT AND SYSTEMS SOFTWARE		
A. Mini Computer	$ 35,000	$ 1,000
B. Micro Computer	5,000	200

C. Considerations:

Both systems and applications software are needed to design a statewide on-line CEG system. Systems software must be selected prior to the development of applications software. To the knowledge of the CEG Steering Committee, existing applications software is not availabe to support a statewide on-line CEG system. Therefore, it would need to be developed.

Sufficient resources to develop the applications software may exist within the administrations or student bodies of Arizona community colleges and universities, e.g., systems analysts and programmers within administrations and students who are interested in pursing special projects or cooperative education course credit.

The CEG Steering Committee, together with selected systems analysts and programmers, could define the system specifications, select the systems hardware, and develop the applications software. The CEG Steering Committee, with the assistance of a Systems Analyst as an ad hoc member, could serve as the project manager for the system.

II. EQUIPMENT

A. Central Site

1.	Mini Computer	60,000	unknown
2.	Communications		
a.	8 phone lines	560	3,840*
b.	modems	4,000	unknown

B. Each College Site

1.	Micro Computer	5,000	unknown
2.	Communication		
a.	phone line	70	480*
b.	modem	300	unknown

* Phone lines costs $70 each for installation with a monthly service charge of $40 (prices as of June, 1985).

C. Considerations:

Each institution could purchase its own hardware equipment. However, the cost would exceed that of a joint purchase.

The Maricopa County Community College District can purchase equipment at a reduced rate for all involved institutions and sell it to them at cost.

III. SITE SELECTION REQUIREMENTS

A.	10′ x 10′ area	unknown	unknown
B.	Electricity (air conditioning)	unknown	1,500
C.	Computer Operator	500	20,000

D. Considerations:

Site selection for the central CEG is critical. Costs at the site will include operations, maintenance, and storage.

IV. OPERATIONS, MAINTENANCE AND STORAGE

Maintenance cost is estimated at #600 per month. However, actual Cost will depend on peripheral.

The Maricopa County Community College District will agree to house the system and provide free operations and storage. Maintenance costs on the central site equipment may need to be shared. The District has a Management Systems and Computer Services (MSCS) Department that performs maintenance on IBMs, Apple PCs and communication modem swap-out agreements with vendors. Operation of the CEG system would require minimal intervention, except in cases of hardware or electrical power problems. The MCSC operations staff could perform this task without a major impact on its current duties, thus allowing statewide phone contact generally 24 hours a day. Some holidays and summer special work hours (10 hours a day - M-Th) would reduce the availability of a phone contact to the operations personnel. However, the system would be available providing a malfunction did not occur during these times.

As a result of operating and storing the central system at the Maricopa District, the cost of maintenance would decrease.

NOTE: All Maricopa Commitments are pending approval of the Information Technologies Executive Council.

POSSIBLE FUNDING SOURCES

Possible funding sources could include: state funds, federal funds, and special grants/donations from industry.

```
XYA Community College                                                   MM/DD/YY  Page/p/
Degree Audit for ........................Mary Doe                          SS#222222222
Contact:                                 2367 Maple St                   First Term:  YYT
Jane Smith                               Phoenix, AZ  85021      Current Audit Term:  YYT
Advisement Office                                                  Prog Code:  07-0089-842-
```

```
This is a comparison of your previous and
current course work against the following
Program requirements:  AAS
Food Service Administration
Degree required credits:  64      GPA:  2.00
Program required credits:  42     GPA:  2.00
Residence credits required:  12
Minimum course level required:  100
In progress courses are considered passed.
Grades are shown as dash(-).
```

```
Legend:  (SAMPLE)
P-R-MAT106(B)..P=Pre-corequisite, R=Resident
 course (B)=Grade. All required.
*MAT214..*=A required course or series.
W-MAT102..W=Waived course for this student.
S-ENG107/ENG101..S=107 substituted for 101.
(ENG220)...Course taken/in progress.
A-MAT106..Articulation course, not offered.
##Communications..##=Requirements not met.
MAT218(6CR)..6 Credits required or accepted.
L-BIO195..L=Lab course.
```

```
|##Departmental Requirements:               |
| 42 Credits                                |
- - - - - - - - - - - - - - - - - - - - - - -
|##Required Courses:       if transfer      |
| 17 Credits                                |
| Taken:                                    |
| FON101 A 2.00 846T          GPA:  4.00    |
| Credits needed:  15                       |
| Select from:                              |
| (*FON101)  *FON102   *FON106  *FON111     |
|  *FON202   *FON204   P-*FON206            |
- - - - - - - - - - - - - - - - - - - - - - -
|##Optional Requirements:                   |
| 12 Credits                                |
| You must complete one of the two block    |
| requirements listed below:                |
- - - - - - - - - - - - - - - - - - - - - - -
|Block one:                                 |
| 12 Credits                                |
| Select from:                              |
| FON116     FON117     FON118     FON119   |
- - - - - - - - - - - - - - - - - - - - - - -
|Block two:                                 |
| 12 Credits                                |
| Select from:                              |
| *FON142      *FON143 or *FON144           |
| FON140AK  FON140AP  P-FON140AR            |
| P-FON200                                  |
|                                           |
 -------------------------------------------
|                                           |
|##Departmental Electives:                  |
| 13 Credits                                |
- - - - - - - - - - - - - - - - - - - - - - -
|Restricted Electives:                      |
| 10 Credits                                |
| Select from:                              |
| CIS105  FON140AS   FON140AW   FON140BC    |
| FON140BD  GBS131   GBS151     MGT276      |
- - - - - - - - - - - - - - - - - - - - - - -
|Free Electives:                            |
| 3 Credits                                 |
| Select From:                              |
| Any course                                |
 -------------------------------------------
```

```
 -------------------------------------------
|##General Education Requirements:          |
| 22 Credits                                |
- - - - - - - - - - - - - - - - - - - - - - -
|##Communications                           |
| 6 Credits                                 |
| Select from:                              |
| P-*ENG101  COM100  P-ENG106  P-ENG110     |
|  P-ENG217   P-GBS217         P-RDG101     |
- - - - - - - - - - - - - - - - - - - - - - -
|                                           |
|Health, Physical Education, Recreation:    |
| 2 Credits                                 |
| Taken:                                    |
| HES152 - 2.00  856                        |
| Needed:  0                                |
|- - - - - - - - - - - - - - - - - - - - - -|
|                                           |
|##Humanities:                              |
| 2 Credits                                 |
| Select from:                              |
|   ARB101 P-ARB102    CHI101  P-CHI102     |
|   COM100   COM241    ENG213    FRE101     |
| P-FRE102 P-FRE201  P-FRE202    FUS101     |
|   FUS105   GER101  P-GER102  P-GER201     |
| P-GER202   GRK101  P-GRK102    HBR101     |
| P-HBR102 P-HBR201  P-HBR202    HIS100     |
|   HIS101   HIS102    HIS243    INT111     |
|   INT115   ITA101  P-ITA102  P-ITA201     |
| P-ITA202   JPN101  P-JPN102    LAT101     |
| P-LAT102   MHL140    MHL141    MHL142     |
|   MHL143   MHL144    MHL145  P-MHL148     |
| P-MHL241 P-MHL242    MTC100    PED268     |
|   POR101 P-POR102    REL101    REL201     |
|   REL202   REL203    REL213    REL243     |
|   REL244   RUS101  P-RUS102  P-RUS201     |
| P-RUS202   SPA101  P-SPA102  P-SPA201     |
| P-SPA202 P-SPA251    TCM145    THE111     |
|   THE122   THE205    THP241               |
|                                           |
|  Any:  ARH   ENH   HUM   PHI   SPH        |
|- - - - - - - - - - - - - - - - - - - - - -|
XYA Community College                                            MM/DD/YY Page /p/
Degree Audit for ......................Mary Doe                      SS#2222222222
Contact:                               2367 Maple St              First Term:  YYT
Jane Smith                             Phoenix, AZ  85021  Current Audit Term:  YYT
Advisement Office                                       Prog Code: 07-0089-841-
```

```
- - - - - - - - - - - - - - - - - - - - -
|                                          |
|##Science and Quantitative Studies:       |
| 6 Credits                                |
| Select from:                             |
|  *FON141                                 |
|   AGL184 P-AGL185  P-AGL283    AGM143    |
|   AGS164 P-AGS165    AGS285    AJS215    |
|   AJS216   ANS110    ASM101              |
| P-BIO195(4Cr)      P-ELA111  P-ELA112    |
| P-ELA123 P-ELA124  P-ELA235  P-ELA236    |
| P-ELA247 P-ELA248    EQS120  P-EQS220    |
|   FON141   GBS131    GBS133    GBS134    |
|   GBS161 P-GBS221  P-GBS222    HUC104    |
|   IND131  IND132     MHS101  P-MHS103    |
|   MHS106 P-MHS107  P-MHS108  P-MHS202    |
| P-MHS203 P-MHS204  P-MHS205  P-MHS206    |
| P-MHS207 P-POS201  P-PSY212  P-PSY230    |
| P-PSY231 P-PSY290  P-PSY295  P-PSY296    |
|   TCM105 P-TCM106  P-TCM108  P-TCM109    |
| P-TCM110 P-TCM112  P-TCM201  P-TCM203    |
| P-TCM205 P-TCM206  P-TCM210              |
|                                          |
| Any:  ACC  ADA  AET  AUT  BIO/XCPT/195   |
|       BKL  BLT  BMT  CET  CHY            |
|       CIS/GRTR/105   CLS  CRP  DAE       |
|       DFT  DHE  DIE  ECE  ELC  ELT       |
|       EMT  FSC  GLG  GLZ  GPH  GTC       |
|       HVA  IRW  MAT  MCN  MET  MRT       |
|       MWK  MWR  NUR  OEG  PCM  PFT       |
|       PHS  PHY  PNT  QCT  RES  SET       |
|       SML  SNP  TDR  WWM                 |
| - - - - - - - - - - - - - - - - - - - - -
|                                          |
|##Social and Behavioral Sciences:         |
| 6 Credits                                |
| Select from:                             |
|  *PSY101                                 |
|   AGB130   AJS101    CFS157    CFS159    |
|   CFS176 P-CHD120  P-CHD125  P-CHD130    |
| P-CHD135 P-CHD140 P-CHD170   P-CHD210    |
| P-CHD220 P-CHD225  P-CHD230  P-CHD235    |
| P-CHD240 P-CHD245  P-CHD250  P-CHD255    |
| P-CHD270 P-CHD280    EDU221    EDU230    |
|   MHS101 P-MHS103  P-MHS105    MHS106    |
| P-MHS107 P-MHS108  P-MHS109  P-MHS201    |
| P-MHS202 P-MHS203  P-MHS204  P-MHS205    |
| P-MHS206 P-MHS207  P-MHS208  P-MHS209    |
| P-MHS210                                 |
|                                          |
| Any:  ASB  ECN  FUS  GCU  HIS  LST       |
|       POS/XCPT/201  PSY/XCPT/212 231     |
|       232 290 295 296     SOC  SWU       |
____________________________________________
```

```
 ________________________________________________
|                                                |
|Program requirements not met in:                |
|Departmental Requirements                       |
| Required courses                               |
| Optional requirements                          |
| Departmental electives                         |
|General Education Requirements:                 |
| Communications                                 |
| Humanities                                     |
| Science and Quantitative Studies               |
|                                                |
| Social and Behavioral Sciences                 |
 ________________________________________________
|                                                |
|Program:   Credits:   4.00   GPA:  4.00         |
|Resident credits:  4.00                         |
|Cumulative GPA:  1.67                           |
 ________________________________________________
|                                                |
|Non-program courses:                            |
|COURSE ID  GR    CR    TERM   STATUS            |
|  FON101   D    2.00   844    N/A Repeat        |
|  PFT204   -    3.00   856    Non-program       |
|  ITA101   F    3.00   842    N/A               |
|  FON116   W    3.00   842    N/A               |
|  ENG101   W    3.00   842    N/A               |
 ________________________________________________
|                                                |
|Test Scores:                                    |
| ACT   xx    xx    xxx    xx                    |
 ________________________________________________
```

STANDARD DEGREE/CERTIFICATE PROGRAMS

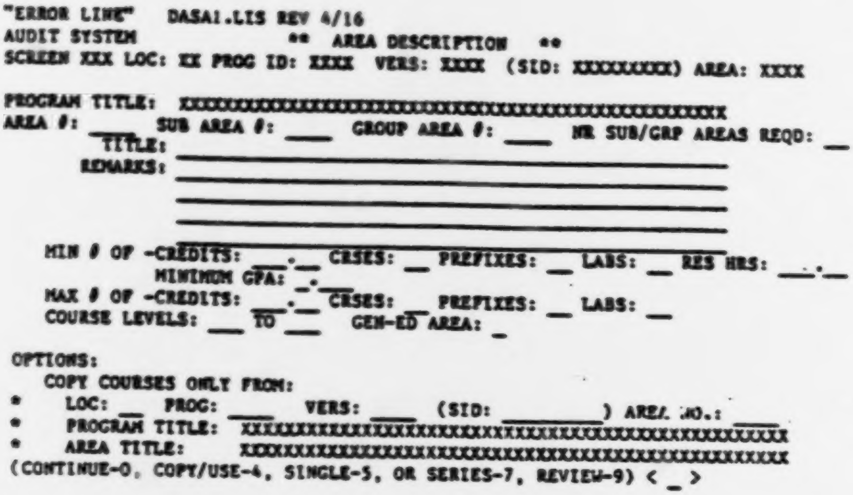
The actual requirements of a program are contained in "areas" within the program contents. A certificate might have only one area. Normally degree programs contain several areas. Basically these areas are the breakdown of the general education requirements into departmental requirements. A degree program with a specific major would have additional areas containing just the major requirements. Areas and their titles are similiar to specific course groupings found in standard college catalogs.

In the DAS there are three types of areas. Simply stated they are paragraphed requirements. A major area is the highest level. It may be followed by sub-areas which are subordinate to the major area. Sub-areas may in turn be followed by group-areas which are subordinate to sub-areas. Subordinate means that failure to satisfy requirements at a lower area will cause the major area to be identified also as failing to meet the requirements.

An important option in the use of areas is that a higher area may specify that X of 3 following (sub or group) areas are all that is needed to satisfy the major area.

Each area contains the same requirement elements, all of which are optional. Since most areas are followed by specific course requirements the screen that is used to create an area also contains an option that permits courses from other program areas to be copied into the new program instead of entering each individual course.

The following screen is used to establish an area.



```
"ERROR LINE"   DASA1.LIS REV 4/16
AUDIT SYSTEM                 **  AREA DESCRIPTION   **
SCREEN XXX LOC: XX PROG ID: XXXX  VERS: XXXX  (SID: XXXXXXXXX) AREA: XXXX

PROGRAM TITLE:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AREA #: ____  SUB AREA #: ____  GROUP AREA #: ____  NR SUB/GRP AREAS REQD: __
      TITLE:  ____________________________________________________
    REMARKS:  ____________________________________________________
              ____________________________________________________
              ____________________________________________________
              ____________________________________________________
              ____________________________________________________

   MIN # OF -CREDITS: ___.__ CRSES: __ PREFIXES: __ LABS: __ RES HRS: ___.__
           MINIMUM GPA: _.___
   MAX # OF -CREDITS: ___.__ CRSES: __ PREFIXES: __ LABS: __
   COURSE LEVELS: ___ TO ___   GEN-ED AREA: _

OPTIONS:
   COPY COURSES ONLY FROM:
*    LOC: __   PROG: ____   VERS: ____  (SID: _________) AREA NO.: ____
*    PROGRAM TITLE:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
*    AREA TITLE:     XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(CONTINUE-0, COPY/USE-4, SINGLE-5, OR SERIES-7, REVIEW-9) < _ >
```

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STANDARD DEGREE/CERTIFICATE PROGRAMS

Each AREA description in a program is normally followed by specific course requirements. The DAS classifies all courses into two main categories; single and series (A and B or C, etc) The following screen is used to enter single courses only. Column heading definitions are:

REQ. NO. - Number of times this course is required.

MAX HRS - Maximum credits that can be applied against this requirement. A repeatable course condition.

LAB - 1 = lab course, 2 = lec/lab combination. 0 (default) is lecture course.

PRE - A "P" presentation on the screen means the DAS has found this course to have a pre-corequisite file entry.

RES - Residency requirement. 1 = student course must be from the same college as in the program identification. 2 = student course must be from one of the residency colleges entered in the AC file as a fixed feature. 0 (default) any student course is accepted.

GRD - A grade entry requires the student course grade to be equal or higher. Alphabetic and numeric grades are accepted.

SEQ NO. - Sequence numbers of 01-99 may be entered. On the audit report the sequence numbers will be printed preceding the course(s) to indicate the preferred order the courses must be taken in this particular area.

NOF - Course offering. An "N" entry indicates the course is not offered at the college in the program identification but is offered at one of the resident colleges in the AC file. An "A" entry indicates this is an articulation course only offered at a higher level institution. The course ID is that of the higher level institution.

FIXED CR-HR - A credit hour entry by the user indicates that the student will receive the fixed credit hour amount if they match the course ID, regardless of the amount of credit hours their course equates to.

STAT - Additional status of the fixed cr-hr. If there is no entry in fixed cr-hr a 0 (default) STAT entry means apply the student credit hour against the program requirement. A "1" entry means do not apply the student credit hour against the program requirement. If fixed cr-hr has an entry and a "2" is entered in STAT the DAS will attempt to split the student credit hour between the fixed cr-hr (lower) and any other matches of the student course elsewhere in the audit program.

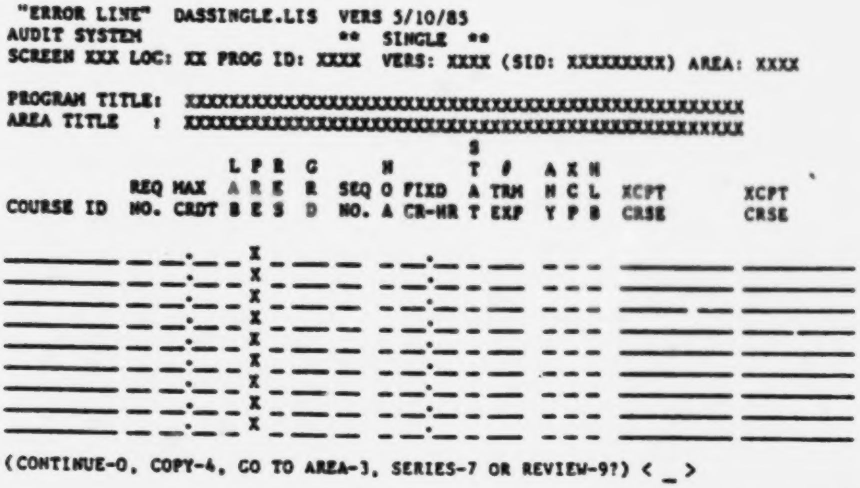
STANDARD DEGREE/CERTIFICATE PROGRAMS

#TERM EXP	- Semester/term limitation of the student's matching course against the program course. A "4" entry means that a student course over semesters old would not match this requirement.
ANY	- An "A" entry indicates that the course ID entry is representative, i.e. ENG or BIO, without a level. Any course with that prefix matches the program course.
XCP	- Further qualification of ANY. An "X" entry indicates there are exceptions to the ANY condition.
HLB	- Further qualification of ANY. "H" entry means "higher than:," "L" entry means "lower than:," a "B" entry means "between:"
XCPT CRSE	- Course IDS entered as part of the XCP qualification statement. If HLB = B there must be at least two XCPT CRSE entries.

During the entry of courses into a DAS program the system performs many functions. The COURSE ID entry results in the system accessing the common number course ID file and placing the common number in the DAS program with the course information previously described. This permits any student course with the same common number to match the program course, regardless if the course ID has been changed by the college.

The course ID and the program identification are placed automatically in the course capture file. This permits the curriculum management office to receive reports showing a single course ID and all of its applications.

The following screen is used to enter single courses.



```
 "ERROR LINE"  DASSINGLE.LIS  VERS 5/10/85
AUDIT SYSTEM                  **  SINGLE  **
SCREEN XXX LOC: XX PROG ID: XXXX  VERS: XXXX (SID: XXXXXXXXX) AREA: XXXX

PROGRAM TITLE:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AREA TITLE   :  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
                                         S
                 L P R  G      N         T  #   A X H
          REQ MAX A R E  R  SEQ O FIXD   A TRM  N C L  XCPT        XCPT
COURSE ID NO. CRDT B E S  D  NO. A CR-HR T EXP  Y P B  CRSE        CRSE

                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _ X _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
                   X
_________ __ __.__ _   _ ___ __  _ __.__ _ ___  _ _ _  __________  __________
(CONTINUE-0, COPY-4, GO TO AREA-3, SERIES-7 OR REVIEW-9?) < _ >
```

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STANDARD DEGREE/CERTIFICATE PROGRAMS

Series courses contain the same data elements as single courses. Their only difference is that the courses are tied together with "AND" "OR" and "ELSE" terms. Illustrations of the use of these series connectors will be contained in the complete user manual.

Because of the inherent complexity of a series the DAS considers the entire series as a single requirement statement. A single data element in the series cannot be altered without reentering the entire series itself. This is for the users' protection.

The "AND" statement is considered equivalent to the word "plus."

Example: ENG101 AND ENG102 = two courses are required.

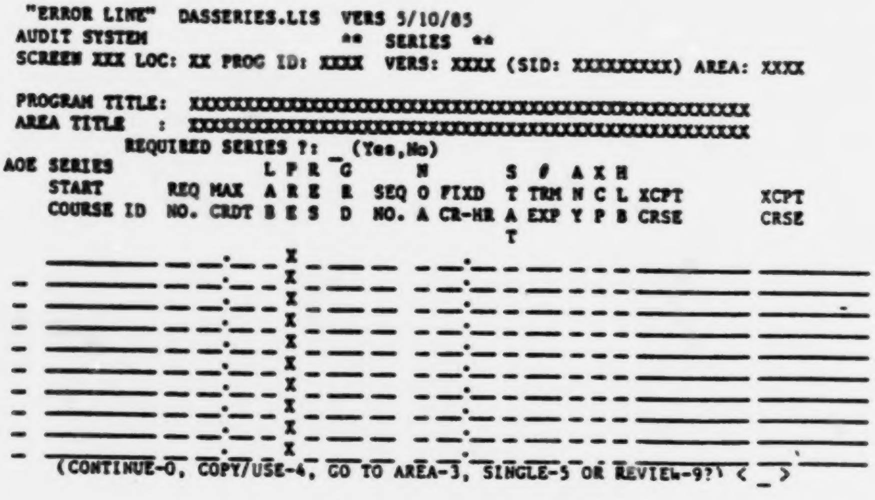
The "OR" statement is considered an option or choose statement.

Example: MAT106 OR MAT108 = one course is required.

The "ELSE" statement is used in the DAS series as a choice statement between two specific groups in a series.

Example: ENG101 AND ENG102 ELSE JUR108 AND JUR110 = two courses required (AND) but they must be from the same group.

The following screen is used to enter a series.



```
 "ERROR LINE"  DASSERIES.LIS  VERS 5/10/85
AUDIT SYSTEM                    **  SERIES  **
SCREEN XXX LOC: XX PROG ID: XXXX  VERS: XXXX (SID: XXXXXXXXX) AREA: XXXX

PROGRAM TITLE:  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
AREA TITLE   :  XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
        REQUIRED SERIES ?: _ (Yes,No)
AOE SERIES                 L P R  G        N        S  #  A X H
    START       REQ MAX    A R E  R  SEQ  O FIXD    T TRM N C L XCPT        XCPT
    COURSE ID   NO. CRDT   B E S  D  NO.  A CR-HR   A EXP Y P B CRSE        CRSE
                                                    T
    _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   _________ __ __.__ _ X _ ___ __  _ __.__ _ ___ _ _ _ __________ __________
_   (CONTINUE-0, COPY/USE-4, GO TO AREA-3, SINGLE-5 OR REVIEW-9?) < _ >
```

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PROGRAM CONSTRUCTION

The required components of the various programs used in the DAS are shown below.

DAS

PROGRAM COMPONENTS

Program type Four char. indicator	Degree/certif. 0001-9999	Articulation A001-A999	Student Unique S001-S999 with student ID	Stu. Narrative 0001-9999 with student ID	Work M001-M999	Text T001-T999	Repeats RPTS
Components:							
Program ID.	R	R	R	R	R	R	R
Internal program description information.	R	R	R		R		
Expanded 1-30 line narrative.	Opt	Opt	Opt	R	Opt		
Major area	R-1	R-1	R-1		R-1		
Sub area	Opt	Opt	Opt		Opt		
Group area	Opt	Opt	Opt		Opt		
Courses	R-1	R-1	R-1		R-1		R-1
1-5 line text.						R	
Related programs.	Opt	Opt	Opt		Opt		

R=required. R-1=at least one required. Opt=optional, not required.

Each of the components is described under PROGRAM descriptions. Additionally the DAS provides certain features in the construction process to assist the user in program construction. These features are described in the following pages.

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MARICOPA COMMUNITY COLLEGES

MEMORANDUM

DATE: July 2, 1985

TO: CEG AD HOC COMMITTEE
Dill Broderick, Pima Community College
Jim Hilbink, Arizona Western College
Kris McClusky, Northern Arizona University

FROM: Irene Wright/Jim DeVere Jw

SUBJECT: STATEWIDE ON-LINE COURSE EQUIVALENCY GUIDE

As per your request, Jim has provided costs that can be estimated at this point for the enclosed July 1, 1985 draft of the "Proposal for Statewide On-Line Course Equivalency Guide." Please note that the Maricopa commitments are pending approval of the Information Technologies Executive Council (ITEC).

By copy of this letter, I am asking Ron Bleed to attempt to seek ITEC approval prior to the end of July, if possible. This approval is needed prior to that time so that the following activities can take place prior to the August 29, 1985 meeting of the Course Equivalency Guide (CEG) Steering Committee:

7/2/85	Draft Proposal mailed by Irene to Ad Hoc Committee
7/1-19/85	Ad Hoc Committee responses on draft to Dill
7/19-25/85	Irene to provide revised proposal to Dill
7/25-31/85	Dill to send proposal to entire CEG Steering Committee for their approval at the August 29 meeting

On behalf of the Ad Hoc Committee, I'd like to thank Jim DeVere for taking the time to provide technical support and advice to the Ad Hoc Committee. I'm sure we'll all benefit in the long run.

Thank you.

Enclosure
cc: Alfredo G. de los Santos Jr.
Ron Bleed
Jim DeVere
Bertha Landrum
John Bradley

ASDAI 1.28

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REPORTS GENERATED

TITLE	PRINTED	DISPLAYED
AUDIT REPORTS	X	X
PRE-COREQUISITE INFORMATION	X	X
PROGRAM STATISTICS	X	X
CURRENT VERSIONS STATISTICS	X	X
COURSE STATISTICS	X	X
COURSEMASTER ANALYSIS	X	
POTENTIAL CLASS LOADS	X	
PROGRAM-STUDENT LOAD STATISTICS	X	
WAIVERS	X	X
SUBSTITUTIONS	X	X
ADDED REQUIREMENTS	X	X
PSEUDO COURSES	X	X
COMMON NUMBERS	X	X
REPEATABLE COURSES	X	X
COLLEGE ENVIRONMENTAL PARAMETERS	X	X

DEGREE AUDIT SYSTEM (DAS)

The Degree Audit System is a multi-faceted system with a variety of options that permit users to apply it in different ways.

Most of the existing degree audit systems in use today are either tailored for a specific college/univerity and/or require the user to learn a complicated input (catalog conversion) process.

The IA-MCCD System approach is to provide a user-friendly, on-line, generic, transportable system. Its overall operation encompasses those features described by various national academic organizations as requirements of a degree audit system, such as graduation verification processing and unique student programs, in addition to the standard catalog/program audit process.

The construction of programs is done directly from the college catalog in an on-line environment. During program construction, an on-line test audit process can be used to immediately test programs. A variety of audit report display and print format modes are available to the user.

The programs themselves can be directly related to students, to various curriculum codes (CIPS, HEGIS, state, divisions, departments) and to degrees or certificates. Selection of students can be by an individual or in group modes. Any student can be audited against any program, both automatically or by selection. All programs contain the capability to link to related programs.

Users can specify program requirements by overall program (GPA, hours, course levels, resident hours), by areas within the program (GPA, hours, courses, course levels, prefixes, resident hours, labs), and by individual courses (required, electives, repeat limits, lab types, previous course names, grades required, any type courses with exceptions, pre-corequisites).

The accumulation of these data elements permits the system to additionally offer a curriculum management system. Statistical reports on the status of courses and programs and their relationships to the overall college curriculum are provided. This includes forecasting of potential class loads for required courses. Certain college offices might only use this part of the system since it provides a computerized base of information normally obtained manually.

Because of the various college environments such as centralized-decentralized curriculum control, multi-campus/colleges and multi-office use of the system, the capability exists for each using institution to establish simple DAS environmental factors during initial installation.

No two colleges are alike in their curriculum offerings and management. The IA-MCCD Degree Audit System recognizes this and contains extensive options to accommodate these differences.

The format of the audit reports is designed for window envelope mailings. Students in specific categories may be group audited and mailed their audit reports with any necessary instructions; i.e., probation status advisement, problems in course selections as determined by the audit process, night school attendees, all freshmen, specific major enrollees, etc.

DAS AND THE ADVISEMENT PROCESS

The Degree Audit System (DAS) contains numerous features directly related to the advisement process.

An index listing of all programs at all colleges, grouped by CIPS code, can be printed periodically and retained as a reference document. The index contains the college, program ID, title, hours and type (degree, certificate, etc.). This document permits quick reference to telephone inquiries as to where programs are offered or to individual student questions during advisement sessions.

All audit programs can be printed in the blank (no student coursework) mode. This includes the pre-requisite courses if this option is selected. Students can be advised over the phone or provided pre-enrollment copies of programs. An office master print or a printout book for each advisor can be maintained. Individual programs can be printed in the advisement office if a CRT/printer is available. Extensive printouts can be initiated by the office and printed at the DP Center.

The DAS permits the advisement office to initiate waivers, substitutions and added requirements to any program on a per student basis. The office can monitor these actions by periodically printing all such actions, by type; i.e., all waiver in force at XX college as of XX date. A master listing can be maintained in addition to the furnishing of individual reports to the initiating staff member.

Enrolled students seeking advisement either by appointment or in a drop-in status can be provided a copy of their audit program/status as of the date of their visit prior to an advisement session. Receptionists can request audits and receive the immediate response/report on a while-you-wait basis if the office has CRT/printer equipment.

The advisement office may initiate scheduled standardized reporting procedures to obtain audit reports of:

a. All students assigned to each advisor.

b. All students currently enrolled in a probation status, by advisor or by status alone.

c. All students currently enrolled with a total hours of XX (near graduation) by advisor or by hours alone.

Comparisons of all similar programs (shown on the index listing as in the same general; i.e., CIPS, category) can be done in the advisement process.

During program construction the relationships of programs is designated; i.e., a degree program might also offer certificate equivalencies. These relationships are described on the audit report plus the index listing. During the audit/student selection process, the advisor can request audits against the primary enrolled programs plus related programs.

The advisement office can initiate requests for any program against any student on a trial basis, regardless if the student is enrolled in the program or not.

Administrative personnel within the advisement office can request and maintain program printouts and listings on a secheduled basis to create office reference documents for advisors.

The format of the audit reports is designed for window envelope mailings. Students in specific categories may be group audited and mailed their audit reports with any necessary instructions; i.e., probation status advisement, problems in course selections as determined by the audit process, night school attendees, all freshmen, specific major enrollees, etc.

DAS AND THE ARTICULATION PROCESS

The Degree Audit System can assist the advisement and curriculum management offices in establishing guidelines and reference information for articulation planning and review.

The DAS program construction process is not aware of the intended use of a program. It only requires that, in general, course IDs entered as part of the prograqm requirements be valid local courses so that they can be matched against student coursework.

Programs may be constructed which contain local course-ID equivalencies of other institution courses. These courses, in addition to the various other program requirement elements (GPA, hours, etc.), may be used to establish and construct a program offered by another institution, but related to local coursework.

The general areas of articulation processing related to the DAS are:

a. Definitive establishment of program compatibility/equivalencies. The user must first determine that the local institution actually provides the equivalent requirements, in courses and hours.

b. Construction of local DAS programs which reflect another institution's requirements in local courses and hours.

    1. Identification of the articulation agreement so that it may relate to the local institution's enrollment process. If the articulation agreement is directly related to a local institution's program; i.e., a local two-year business degree program provides all the necessary hours and courses for direct transfer to a junior status at another institution, the local program should be so identified during construction. A data element "OTHER USE" appears in each program. An entry of "2" might indicate the program is a local degree program plus an intact transfer program. This information could then be displayed in the index listing of local programs, plus on the audit report itself.

2. When local institutions provide courses only (not in a specifc program) that, when combined meet a transfer agreement requirement, the local institution can create a unique transfer program listing all the pertinent local courses. The local institution would then have the option of enrolling students in that unique program for the purpose of transfer only.

3. The DAS permits the user to designate program courses as not-offered. This feature is used primarily in articulation agreement programs. A local institution might only offer 80% of the courses and hours of the agreement. A DAS program might be constructed that lists both the offered local courses and the "not-offered" courses of the transfer institution. When audited, the student is only considered pass/fail against the local institution courses/ requirements. The "not-offered" indicator might be expanded to include "offered elsewhere locally" where the course is available at another college related to the local institution.

4. The DAS can establish/retain a relationship between articulation programs and speciifc other institutions. This feature requires the user to identify specific programs and their transfer agreement destination institutions. This information may be printed on audit reports for students and provided on program index listings for general selection information.

The articulation office can use the DAS as a tool in evaluating students' coursework against articulation agreements. The process above is provided as an example of the development of a DAS-Articulation System within the DAS.

DAS AND CURRICULUM MANAGEMENT

The Degree Audit System (DAS) provides the curriculum management office with extensive information.

The data elements used in, and as a result of, the cnstruction of programs permits a variety of statistical reports to be printed in addition to the basic audit program reports.

Curriculum programs can be printed in complete or index listing formats by college, general category (CIPS, etc.), degrees or certificates, hours, etc. If the office is responsible for DAS program construction, both types of reports would be beneficial.

The course statistics report provides a review of any/all courses used in the DAS and their detailed relationship to the curriculum. This includes all the programs they are contained in and their status in the programs (required, elective, requisite status, etc.). This report can be obtained by any authorized user at any time on an individual course or in an expanded (college) report version. Any proposed changes to a course's attributes (hours, etc.) can first be checked against a course statistics report to view the potential impact of the change.

The DAS also provides a report feature which prints all students enrolled in a selected program; i.e., a course (change) related to its programs and programs are related to students, through the enrollment/registration process. This permits additional views of potential impact actions.

It should also be noted that audit programs, when revised, do not necessarily cancel out the previous editions. The DAS operates under the concept that enrolling students are automatically assigned the most current version of a program. Should the program be revised, the enrolled version remains in existence and continues as the student's assigned program. The new version becomes available for future enrollees. The report feature cited above permits the user to identify the students that remain enrolled in the suspended program.

In addition to the actual audit program itself, the program status report shows the relationships of all programs in the DAS. It provides a chronological listing of all modification action(s) as well as the relationships between (curriculum) programs in the system. Any action to modify program elements/requirements should first use this report to determine the potential impact on other programs.

Personnel involved in new catalog publishing or version actions should have available the full audit print(s) of the catalog programs for reference to ensure compatibility, even though the catalog versions may be presented in different formats.

Each DAS program contains identification elements for local use (local, division, department ID codes). This permits the user to selectively print audit programs and provide them to the specific institutions office responsible for curriculum administration. While control of the DAS might be assigned to a particular office, the actual purpose and use is institution-wide.

This concept is especially true when the potential classload feature of the DAS is used. This report affects the internal operation of departments in that it permits a view of potential classloads of required courses. This report is extensive in preparation and printing and should normally only be executed once a semester, preferably after withdrawals and when classloads are in a fairly stable status. This report might be restricted to initiation by a single office/authority due to its size and processing time.

DAS AND THE GRADUATION VERIFICATION PROCESS

The Degree Audit System (DAS) contains various features to assist in graduation verification.

Students applying for graduation will have their student (SIS) record posted as to the graduation type(s) applied for by the graduation office.

The office may then use the DAS to automatically audit all applicants. The audits are processed in a batch mode.

The graduation office at this time may review the reports, especially those of students not passing the audit. It should be noted that these will normally be ungraded coursework if the application run is executed prior to final grading. The application audit run will consider these as passing courses for audit purposes. The GPA computed during this run will be based on graded courses only and cannot be considered as relevant to the graduation process.

Particular attention would be paid to students that fail the audit due to a lack of total accumulated hours or failure to meet specific area hours and course requirements. These students will fail the audit even with passing grades in the ungraded courses.

The graduation office has several remedial options available at this time for failing students. The DAS features of waivers and substitutions might be authorized for use if deemed legitimate actions. Their entry can be authorized and controlled through the graduation office.

Upon posting of final grades, a final audit run is initiated. Students previously identified in the application run are automatically collected and audited.

In the selection of the final run, the graduation office may elect to have honors/awards checked during the audit report process. Results are printed on the audit report. The graduation office may also elect to have the honors, if criteria is met, automatically posted to the student's SIS record.

Additionally, the graduation office may elect to have the SIS records of graduating (passing audits) students posted with graduation information degree (type, major, date, etc.). The DAS system recognizes the final run condition and will print the posting status (posted, not posted) on the report.

This applicant and final run feature may be used at any time during the semester.

The above process describes full use of the DAS in the graduation process. This use is not mandatory in that the DAS can also be used in a limited concept.

If the graduation office receives a one-time application (i.e., a certificate applicant), the office can initiate a standard audit for the student. Based on the audit report results and graduation office review, the graduation office may grant the degree/certificate and post the student's SIS graduation record(s).

DAS AND THE FINANCIAL AIDS PROCESS

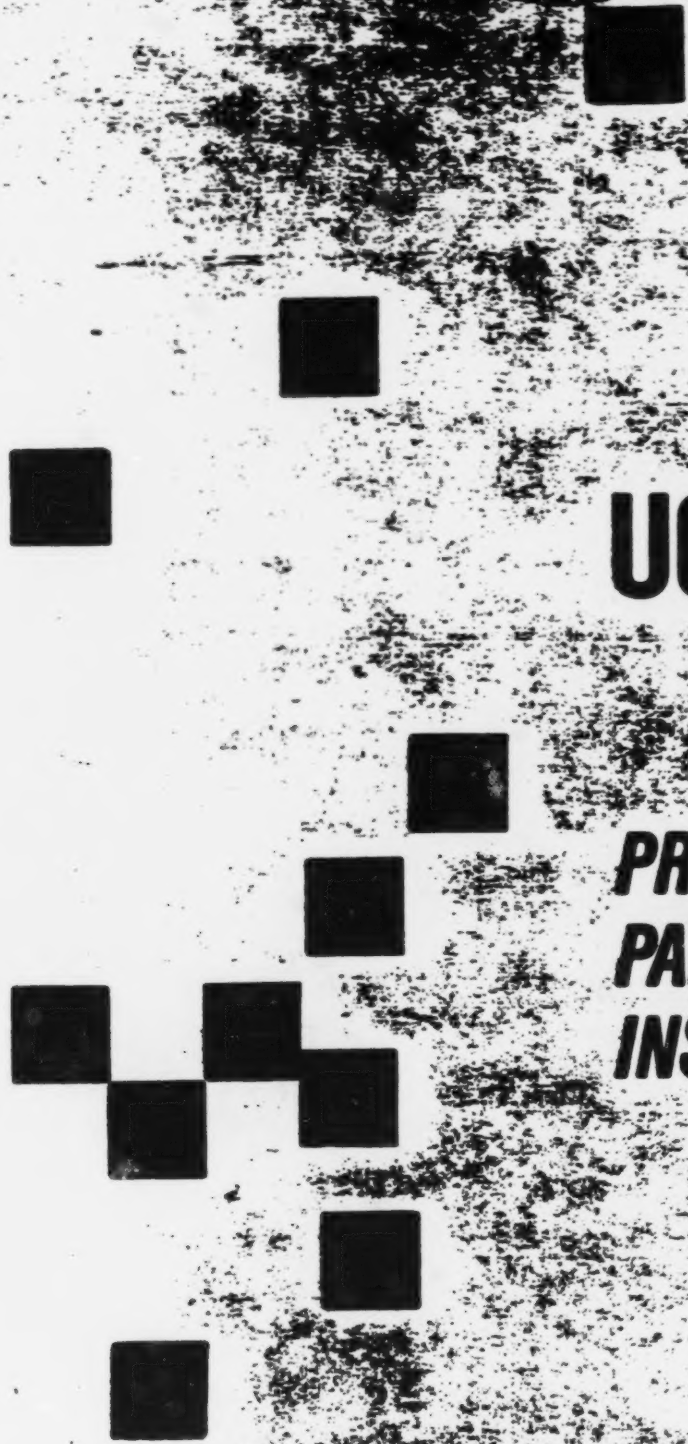
The Degree Audit System can assist the financial aids office in the monitoring of students applying for and receiving aid monies.

Students prergistering may be audited or be required to present an audit prior to applying for financial aid. The DAS audits their existing (complete or in-progress) coursework against their enrolled program requirements. Current semester courses enrolled in but not related to their audit program are specifically identified on the audit report.

The audit report also provides for an ongoing check/hard copy report on the progress of veterans in their selected programs. The identification of current semester courses not in programs is a fixed feature of the audit.

The audit selection feature permits selection/auditing of groups; i.e., all students in financial aid status in a specified semester. The financial aids office may specify that all students with all current semester enrolled courses contained in their enrolled program are to be placed on a roster. Those students with courses outside their program would be printed a full audit report for review by the financial aids office. This process may be scheduled for any time during the semester. It is an after-registration check process and would normally be executed only once during the semester.

Appendix I



UCI/ASSIST

PROSPECTUS FOR PARTICIPATING INSTITUTIONS

A WICHE PUBLICATION

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UCI/ASSIST

Prospectus for Participating Institutions

February 1985

A joint project of the University of California, Irvine,
the Los Angeles Harbor Community College, and the
Western Interstate Commission for Higher Education

This project has been funded by the Western Interstate Commission for Higher Education (WICHE), through a grant from the Fund for the Improvement of Postsecondary Education (FIPSE). It is one segment of a cooperative venture involving the four southwestern states of Arizona, California, Colorado, and New Mexico. The project is designed to explore ways in which articulation between community colleges and four-year institutions can be promoted and increased.

WICHE is a nonprofit regional organization helping its member states to work together to provide high-quality, cost-effective programs to meet the education and manpower needs of the West. Member states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, Utah, Washington and Wyoming.

The UCI/ASSIST program was developed at the University of California, Irvine in 1983-84. A companion volume will describe the technical information necessary for installing the program. Questions about the program should be addressed to Dr. Martha Romero at WICHE, (303) 497-0260.

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Foreword

Recent declines in the transfer function between two- and four-year institutions have significant implications for our southwestern states. As minority populations increase, minority students continue to be concentrated in the community colleges. Due to cutbacks in financial aid and other economic and environmental factors, students often gain access to public higher education through the community colleges. Yet the proportion of those students who successfully transfer to four-year institutions has been drastically decreasing in recent years.

The WICHE articulation-transfer project focuses on improving the flow of articulation and transfer information to potential transfer students and their advisers. This prospectus is the first of two publications intended to inform a wide institutional audience about a computerized model for providing timely transfer information. The ASSIST model was developed at the University of California, Irvine, and is being used by the other three states in the project to identify the data elements necessary for computerizing their own student information systems. Other institutions also are invited to review this prospectus for similar use. The technical documentation manual will be available in Spring 1985.

WICHE is grateful to the Fund for the Improvement of Postsecondary Education for funding this project and to all the institutions involved in the project for their guidance and support. The four-state advisory committee continues to provide technical support to the project.

February 1985

Phillip Sirotkin
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Preface

UCI/ASSIST was conceived in January 1983, as officials of the University of California, Irvine (UCI) and the Los Angeles Community College District (LACCD) informally discussed possibilities of microcomputer technology as an adjunct to traditional articulation and transfer counseling techniques. Because of similar interests in computing, an inclination toward experimentation, and Ford Foundation funding to enhance minority transfer, Los Angeles Harbor College (LAHC) agreed to provide user perspectives, to evaluate the development of such a project, and ultimately to serve as a pilot site for microcomputer-supported transfer course planning. Conceptual design and technical development were initiated by UCI, and have been subsidized from the operating budgets of the Application of New Technologies Office, the Office of Admissions, and the Assistant Vice Chancellor, Academic Affairs. LAHC contributed funding to cover initial stages of screen design and evaluation of user interface.

Upon learning of the project in the fall of 1983, the Western Interstate Commission for Higher Education (WICHE) designated UCI/ASSIST as a model project for improving transfer among minority students in Arizona, California, Colorado, and New Mexico. Under a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), WICHE support is making possible this prospectus, the UCI/ASSIST companion technical manual, and other activities to promulgate the system.

The Office of the Senior Vice President, Academic Affairs, University of California, has contributed toward a portion of the equipment the Irvine campus has required to continue development of the system.

At this time, requests are before other agencies to help underwrite the continuation of UCI/ASSIST, and several other four-year institutions and community colleges have declared an interest in participating in the system. Clearly, the ultimate value of the system expands exponentially with the number of institutions sharing information by this means. Whatever the eventuality, the University of California is committed that the project will continue to mature as rapidly as available resources permit.

James E. Dunning
Project Director
University of California, Irvine

University of California, Irvine
ARTICULATION SYSTEM TO STIMULATE
INTERINSTITUTIONAL STUDENT TRANSFER
(UCI/ASSIST)

Prospectus for Participating Institutions

Declining rates of transfer from two-year to four-year institutions, particularly among underrepresented minorities, are cause for alarm in many parts of the country. In California, for example, where an extensive system of community colleges and well-established articulation with senior institutions are aimed at ready access, minority transfer nonetheless is much less frequent than among the general population. Similar situations exist in other states, but occur most notably in the Southwest where large segments of the population are minorities.

Among reasons identified for the phenomenon are (1) limited access by students to institutional information on the transfer process, such as the transferability and applicability of courses, and (2) ineffective use of such information when it can be located.

Recognizing the responsibility of colleges to provide timely, coherent, and comprehensive articulation information to a variety of users, the University of California, Irvine has designed an on-line microcomputer-supported transfer course planning system for use directly by students, by counselors, and by other college and university officials. Titled UCI/ASSIST (Articulation System to Stimulate Interinstitutional Student Transfer), it articulates the individual's educational history and objectives with course equivalencies for major and general requirements, and also conveys current information on admission, special programs, and support services for any number of institutions participating in the system. Since the transfer course planning logic of UCI/ASSIST is essentially that of a degree check, the system also can perform the latter function within any participating institution independently of the transfer process.

Where is UCI/ASSIST used? Because the system makes available to the student an abundance of choices among institutions, programs, and courses, it is optimally useful in environments where articulation already is ample and systematic. In locales where articulation is less thorough and commonplace, the potential which UCI/ASSIST offers for increased mobility and efficiency in transfer, and as a facile framework within which articulation can be pursued, should serve as an incentive to increased interinstitutional cooperation.

Installations are intended primarily for community colleges, where the program can aid prospective transfer students in comparing majors and four-year institutions, and secondarily at senior institutions where UCI/ASSIST can support admission, transfer evaluation, placement, academic advising, and degree checks.

At each site, a master directory contains files of the course catalogues of all participating institutions, indicating transfer status and acceptability of substitute receiving institution courses. The directory is historically cumulative, accounting for changes in a course's status from term to term. UCI/ASSIST can compare courses and curricula among as many institutions as are contained in the local data base, so that prospective transfer students can shop for the best fit between their academic histories and potential majors at whichever four-year institutions are of interest to them. Thus, there is a great deal more flexibility than the traditional one-to-one articulation characteristic of the printed page.

How does UCI/ASSIST operate? The local UCI/ASSIST installation is supported by an IBM AT microcomputer acting as a file server. While this master configuration can operate alone, it also has the capability of driving a number of remote IBM PC work stations at locations most readily available to students, such as a student union, library, or career center. Ideal locations would be minimally constrained by space, time of access, and staff intervention, so that the student could use the system any time of night or day.

Interactions are menu-driven, and all functions are sufficiently simple and user-friendly to encourage use without assistance from professional staff. Even though interactions are displayed on the monitor, the user can opt for a printed record of any part of the session. Besides providing the student with a permanent reference, the printout can be the basis of a subsequent counseling interview which is more efficient, professional, and humane than one preoccupied by searching for catalogue information, printed articulation agreements, and course lists.

A course record in the UCI/ASSIST course file contains certain customary descriptors which are essential to the use of the system:

-Department designation
-Course number
-Units of credit
-Previous course number

Three more optional elements add to the user-friendliness and informativeness of the transfer course planning process:

-Course title
-Course description
-California Articulation Number (CAN)

In addition, articulation information on each course must be provided:

-Transferability
-Receivability
-Substitute receiving institution course(s)
-Substitute receiving institution sequence(s)
-Substitute receiving institution group(s)
-Change in status from previous articulation year

The flexibility and power of UCI/ASSIST can be significantly expanded by incorporating as an option the codification of certain course attributes enumerated in the Taxomony of Educational Subject Matter (National Center for Education Statistics, 1975):

-Educational Subject Matter (ESM)
-Difficulty of Subject Matter
-Level of Subject Matter

The utility of these options for both student and institutional users will be discussed later in the text as well as the appendices.

How is UCI/ASSIST used by students? UCI/ASSIST is not intended to supplant counseling for transfer, but to augment it by better preparing the student for a more effective counseling interview. It offers the student more options to explore in a session than even the most experienced professional can hope to process and communicate in an equivalent period of time. However, by removing the tedium of seeking out information from catalogues, which must be stored and maintained, and of attempting to locate articulation agreements from years past, counseling can concentrate on more meaningful issues of education choice and life planning.

Among students of nontraditional and disadvantaged backgrounds, planning for transfer typically is a belated step, often combining remediation of past underpreparation with exploration of new goals and familiarization with new sets of requirements and expectations. When students' own schedules are further complicated by employment and domestic obligations, opportunities for traditional counseling may be severely limited. Should accurate, timely information be unavailable when needed, students may at best be tempted toward misinformation which is more readily available, or at worst lower their educational aims.

UCI/ASSIST offers the student direct, instantaneous access to articulation information in ways which are more individualized and flexible than the printed page, and less threatening than an unprepared meeting with a counselor. Because it can contain information on any number of institutions, UCI/ASSIST not only allows the student to make meaningful comparisons, but can account for mobility among more than two institutions--even for the possibility of reverse transfer.

Since a student's interactions with the system may be continuing-- that is, the results of more than one session might cumulate--the student registers for each usage by providing identifiers which permit the retrieval of earlier interactions. Personal data which can be collected also enables the college to analyze student usage of the system, and consequently to evaluate the transfer services it offers respective to student needs.

How do faculty and administrative staff use UCI/ASSIST? UCI/ASSIST does not "articulate" by itself. It is not intended to impose any additional layers of bureaucracy or authority, nor to preempt those prerogatives which an institution sees best fit to manage its articulation process. It requires no new standardization of nomenclature or numbering to serve its primary purposes, though if an institution chooses to adopt them, certain options can capitalize dramatically on the power of the system.

Perhaps the most noteworthy options of UCI/ASSIST are the potentials of Educational Subject Matter (ESM), Difficulty of Subject Matter, and Level of Subject Matter. Up to seven primary and secondary content attributes can be identified for a course. The difficulty of a course relative to other courses in the same subject matter and its position within a curricular sequence can be described, and the appropriate secondary, postsecondary, graduate, or professional level at which the course is to be taught can also be assigned.

ESM makes it possible for a student or administrative user to locate a course by content or combinations of content, rather than by institution, title, or other nominal designation. It might be desirable, for instance, to locate a course containing certain topics, though it is uncertain whether it would be offered under Mathematics or Statistics, depending on institutional practice. As another example, such curricula as Women's Studies or Ethnic Studies frequently are hard to locate because they can be housed in a variety of departments. Use of ESM in the articulation data base makes access to such courses feasible, should participating colleges choose to go that extra step. Systems or groups of institutions might find this valuable for analysis and planning of the curriculum on a broad basis.

Transmission of information about courses in concise ESM codes may also simplify and expedite the articulation process, since in many instances decisions about the applicability of courses could be reached on the basis of such abbreviated information rather than full textual descriptions. In institutions where articulation is well established, UCI/ASSIST provides an efficient and flexible framework within which to manage, maintain, and evaluate articulation. On the other hand, in colleges where there is room for improvement, the convenience of the system and its immediate impact upon large numbers of potential students could serve as an incentive for intensifying articulation efforts.

Since UCI/ASSIST regards transfer planning as checking a student's progress toward a degree objective, and conversely, since a degree check within a college can be treated as an internal articulation agreement among units, the same UCI/ASSIST programs which enable students to plan for transfer make it possible for a college to use the system as a degree check on its own campus. This could be true for any two-year or four-year institution utilizing the system.

By relieving counselors of innumerable and tedious catalogue searches, scarce resources are expanded and valuable professional staff are freed for more meaningful interactions with students. Because student usage of UCI/ASSIST can be recorded, counseling administrators have a new base for research on transfer decision making and can better evaluate the kinds of information and services which prospective transfer students seek.

How does an institution participate in UCI/ASSIST? First, a campus must acquire the equipment to support the system. Minimally, this requires an IBM AT microcomputer with internal hard disk capacity of at least 20 megabytes, a monitor, a printer, a modem, and the Revelation data base management program. Additionally, the institution can opt for any number of remote stations, each consisting of an IBM PC with 512K of memory, floppy disk drive, monitor, printer, and a network system.

Second, at a nominal cost for handling, the participant acquires from the University of California, Irvine the UCI/ASSIST software. A technical manual, containing system documentation, also will be available at cost. The programs will enable the institution to enter the essential and the optional articulation data, and the additional text it wishes to use. This information is then transmitted to UCI by telephone, floppy diskette, or nine-track tape for entry into a master UCI/ASSIST directory.

Third, at a handling cost per institutional file, participating colleges will receive their files and updates from UCI on an annual schedule yet to be determined. UC Irvine intends that revenue generated from handling costs be sufficient only to meet expenses of technical coordination and administration of the project, and not to recover the development costs the University already has invested. Should extramural assistance for the project be obtained, such subsidization will be used to lessen the cost to participants.

UCI/ASSIST User Interface

The two roles in which one may interact with UCI/ASSIST are as a student or as an institutional user. Students planning for transfer are prompted through a more comprehensive sequence of transactions, while faculty and staff may take shortcuts to extract specific information for administrative purposes. The screens which a student typically would use are described below.

(1) **What is UCI/ASSIST?** This screen serves as a preface to one's interactions, describing the aims and capabilities of the system.

(2) **How UCI/ASSIST works.** User interactions with the system are explained in a series of screens which include how to utilize menus, enter free-form text, and activate control and response characters.

(3) **Registering for UCI/ASSIST usage.** The user registers as either a student or an administrative user, and enters identifiers which permit retrieval of previously recorded UCI/ASSIST sessions or which activate an interface with machine-controlled academic records. The student also is asked for additional information which can help the college evaluate its services for prospective transfer students, although this too might be interfaced from another electronic source. Certain information from the secondary record is requested, insofar as it may clarify placement and eligibility for transfer. If any of this information already is known to UCI/ASSIST, the user will be notified, and it need not be recaptured.

(4) **Functions.** The heart of interaction with UCI/ASSIST is this menu from which students select the kind of articulation they wish to explore. The system can be asked to (1) explain in detail the respective options which this menu makes available, (2) enter courses and perform a degree check for a given major and institution, (3) ascertain the articulation status of a single course, or (4) provide textual information about a campus.

(5) **Degree check.** If this option is selected from the Functions menu, the student again is presented with several choices. (1) As with most UCI/ASSIST menus, the first option is for in-depth explanation of the other options which are presented in the menu. The student then can (2) view his or her courses of which UCI/ASSIST is already aware from previous interactions, (3) print this list of courses for verification or for further reference, (4) enter courses taken or otherwise of interest, if not already known to the system, and (5) perform the degree check for a chosen institution and major. The degree check document is comprehensive, and since it occupies more than the eighty columns available on the monitor, it is produced only in hard copy on the printer at the work station.

(6) Single course articulation. The screen would display the status of a single course, if this were selected on the Functions menu. The student enters the course for which he or she wishes to find the equivalent, the institutions from which and to which the course would transfer, and a major if relevant. The matching can work in either direction. The student can find the articulation of a sending institution course at the receiving institution, or conversely a receiving institution course may be known and the system would identify the corresponding course at the sending institution.

If the user is unclear as to the specific course to be articulated, or wants to view all courses in a given discipline which transfer in either direction, he or she simply enters the subject, e.g. English, Dance, etc.

(7) Campus information. If this is selected from the Functions menu, text describing the chosen institution will be displayed. The participating institution is free to present this in any manner it wishes within the following categories: (1) a further explanation of the types of information which follow, (2) general campus information, (3) information on degrees and programs, and (4) information about articulation and transfer respective to the institution. Campus information can be programmed as menu-driven by the institution submitting it, if desired.

After completing any of the above, the student returns to the Functions menu to select another function or to exit the system. At any point in a UCI/ASSIST session, the user can opt for a printed copy of the screen being displayed.

Comparison of Transfer Planning Processes

Traditional Planning		UCI/ASSIST	
Process	Limitations	Process	Advantages
Students and counselors consult, compare current and historical hard copy catalogs and articulation agreements	Hard copy difficult to retrieve, maintain, store and control	Current transfer planning and articulation information readily available to students and counselors via microcomputer	Students and counselors have convenient and immediate access to accurate and comprehensive transfer planning and articulation information
Planning revolves primarily around one-to-one counseling relationship	Accuracy and timeliness of hard copy articulation and transfer information difficult to maintain	Students meet with counselors to establish academic goals, explore transfer options, and outline specific plans	Provides counselor with a better planning tool which allows more efficient and effective use of time
	Counselor time spent retrieving and verifying transfer planning and articulation information		Information continually updated electronically to ensure accuracy
	Articulation information not consistently or readily accessible to students		Incorporates information for any number of institutions on regional, service area, or system basis
	Insufficient opportunity for students to explore wide range of transfer options and plan for transfer in timely fashion		Provides convenient way to share accurate and timely articulation information among participants
	No adequate mechanism to monitor usage of transfer counseling services		Collects aggregate and individual data on student needs, use & satisfaction
	Inconsistent articulation formats makes comparisons among institutions difficult		Collects transfer data for academic planning
	Insufficient institutional feedback on transfer		Maintains exisiting prerogatives and policies regarding articulation

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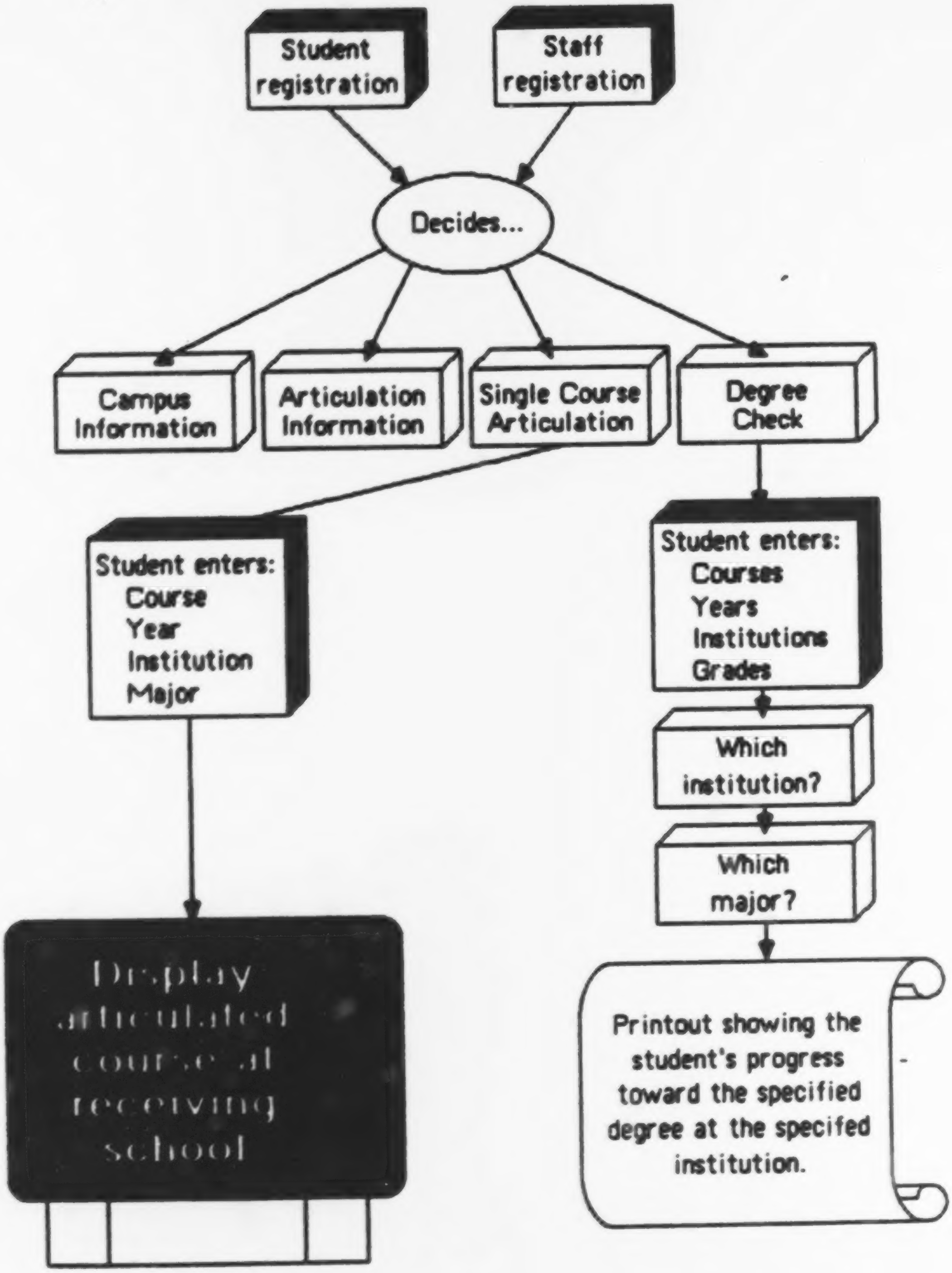
UCI ASSIST Project

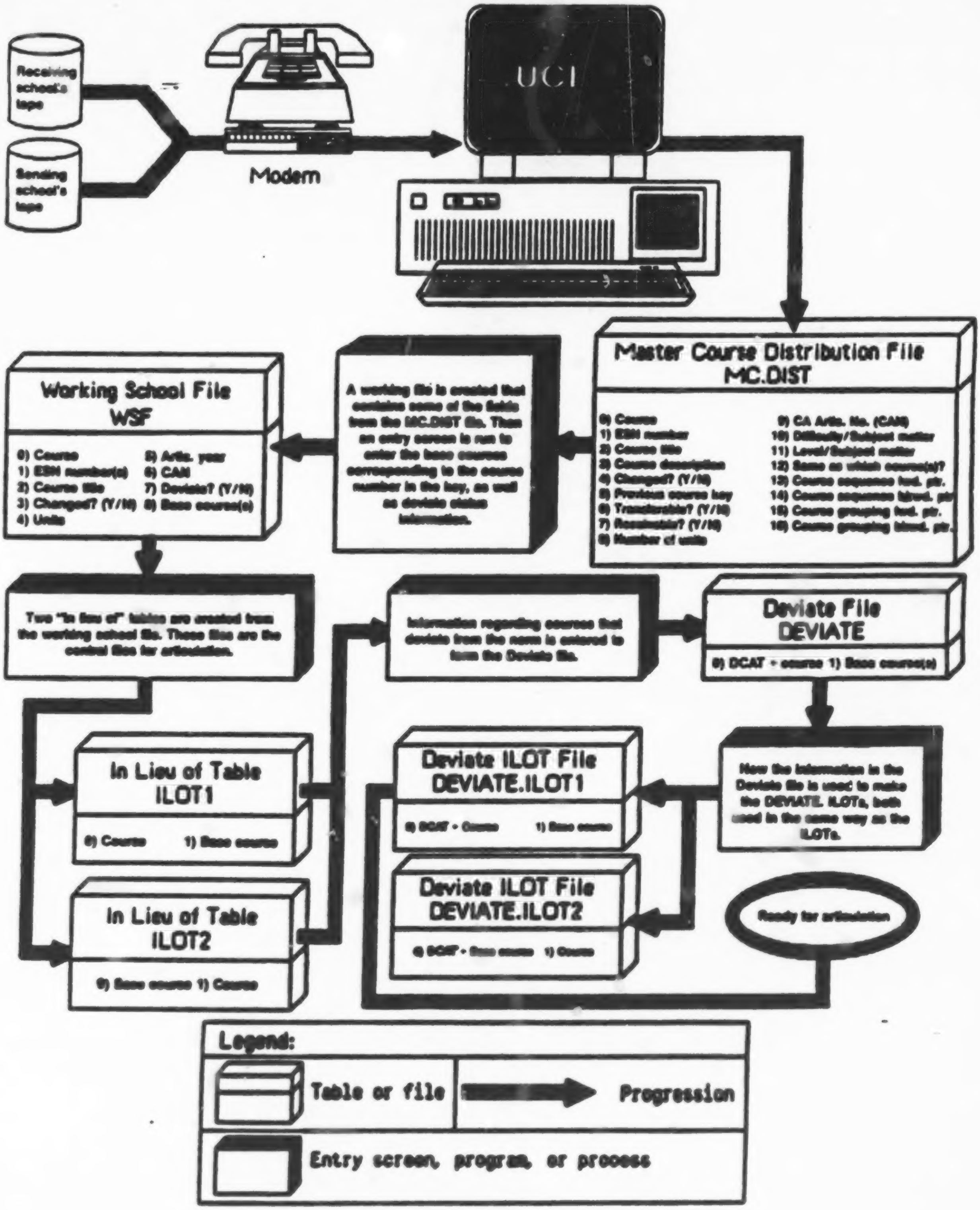
System Usage


Student registration
Staff registration
Decides...
Campus Information
Articulation Information
Single Course Articulation
Degree Check
Student enters:
Course
Year
Institution
Major
Student enters:
Courses
Years
Institutions
Grades
Which institution?
Which major?
Display articulated course at receiving school
Printout showing the student's progress toward the specified degree at the specifed institution.

UCI ASSIST Project

Appendix D

Articulation Setup


Receiving school's tape
Sending school's tape
Modem
UCI
Master Course Distribution File
MC.DIST
0) Course
1) ESN number
2) Course title
3) Course description
4) Changed? (Y/N)
5) Previous course key
6) Transferable? (Y/N)
7) Repeatable? (Y/N)
8) Number of units
9) CA Artic. No. (CAN)
10) Difficulty/Subject matter
11) Level/Subject matter
12) Same as which course(s)?
13) Course sequence fwd. ptr.
14) Course sequence bkwd. ptr
15) Course grouping fwd. ptr.
16) Course grouping bkwd. ptr.
Working School File
WSF
0) Course
1) ESN number(s)
2) Course title
3) Changed? (Y/N)
4) Units
5) Artic. year
6) CAN
7) Deviate? (Y/N)
8) Base course(s)
Deviate File
DEVIATE
0) DCAT + course 1) Base course(s)
In Lieu of Table
ILOT1
0) Course 1) Base course
In Lieu of Table
ILOT2
0) Base course 1) Course
Deviate ILOT File
DEVIATE.ILOT1
0) DCAT + Course 1) Base course
Deviate ILOT File
DEVIATE.ILOT2
0) DCAT + Base course 1) Course
Ready for articulation
Legend:
Table or file
Progression
Entry screen, program, or process

A working file is created that contains some of the fields from the MC.DIST file. Then an entry screen is run to enter the base courses corresponding to the course number in the key, as well as deviate status information.

Two "In lieu of" tables are created from the working school file. These files are the central files for articulation.

Information regarding courses that deviate from the norm is entered to form the Deviate file.

Now the information in the Deviate file is used to make the DEVIATE. ILOTs, both used in the same way as the ILOTs.

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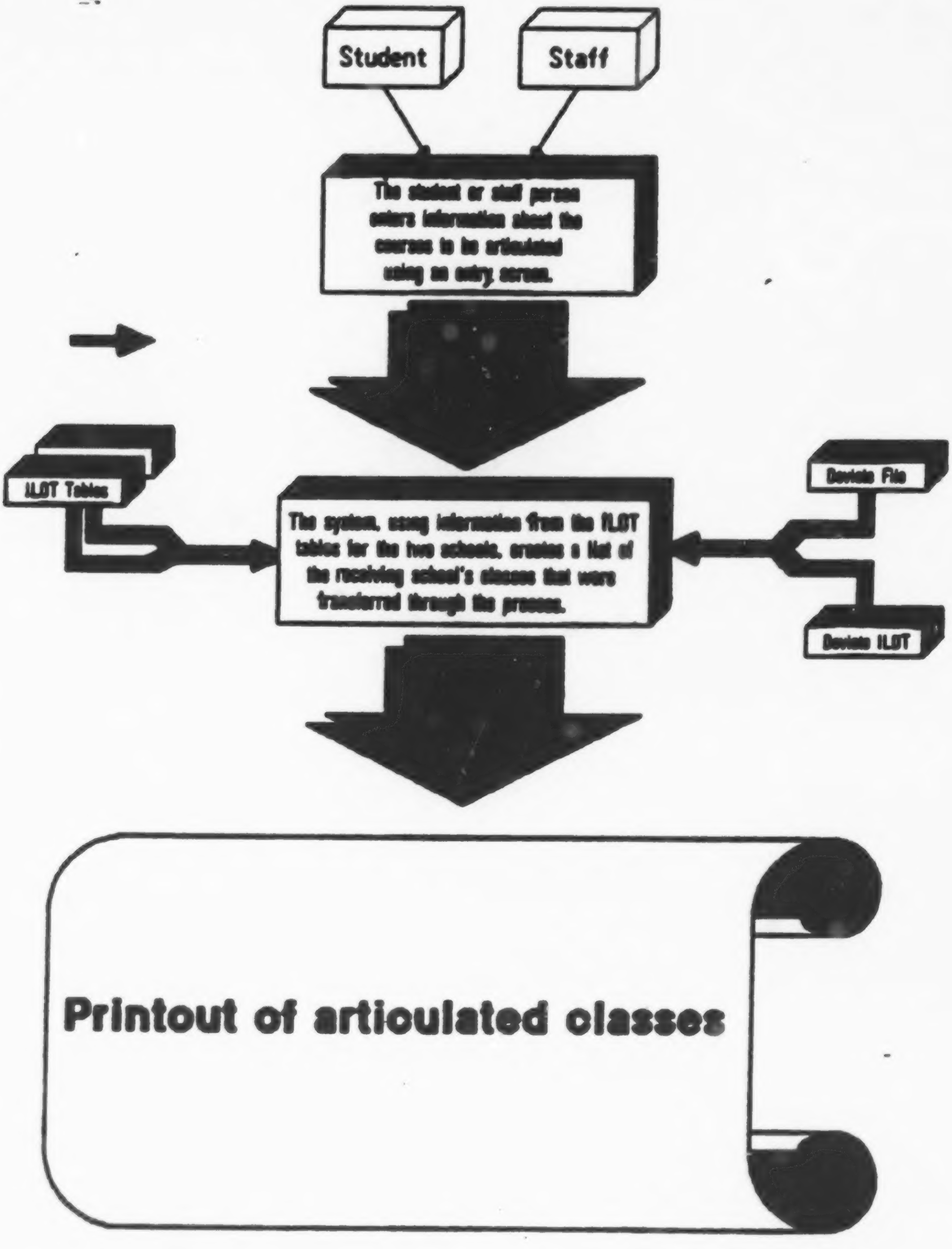
UCI ASSIST Project

Appendix E

Method of Operation — Articulation Phase


Student
Staff
ILOT Tables
Deviate File
Deviate ILOT
Printout of articulated classes

The student or staff person enters information about the courses to be articulated using an entry screen.

The system, using information from the ILOT tables for the two schools, creates a list of the receiving school's classes that were transferred through the process.

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Appendix F

Single Station Equipment Requirements

The following configuration of equipment is necessary to support a UCI/ASSIST installation, either as an individual work station or as a master station and file server for a network of additional IBM PC work stations (Appendix G). Costs are approximate, and represent discounts commonly available to educational institutions, not list prices.

IBM PC AT microcomputer .5 megabyte RAM 20 megabyte hard disk drive 1.2 megabyte floppy disk drive	$5,800
.5 megabyte RAM	700
Hitachi CD ROM	600
80287 math coprocessor	265
Tecmar Graphics Master	500
Revelation software	550
AMDEK 310A video monitor	150
120 megabyte hard disk drive	3,500
Hewlett Packard ThinkJet printer	375
1200 baud modem	500

	$12,940
Tax and shipping	1,060

Total	$14,000

Multiple Station Equipment Requirements

The IBM PC AT system configured in Appendix F can act as a master station for a network of up to twelve IBM PC satellites. The following example represents a typical network of a master system and four remote stations.

UCI/ASSIST single station installation	$12,940
4 IBM PC microcomputers @ 2,350 each 640 kilobytes RAM 80287 math coprocessor dual floppy disk drives	9,400
4 Tecmar Graphics Masters @ 500 each	2,000
4 AMDEK 310A video monitors @ 150 each	600
4 Hewlett Packard ThinkJet printers @ 375 each	1,500
4 network interfaces @ 600 each	2,400
Network cable	200
	$29,040
Tax and shipping	2,282
Total	$31,322

UCI/ASSIST

A joint project of the University of California, Irvine, the Los Angeles Harbor Community College, and the Western Interstate Commission for Higher Education

This pilot project has been funded by the Western Interstate Commission for Higher Education (WICHE), through a grant from the Fund for the Improvement of Postsecondary Education (FIPSE). It is one segment of a cooperative venture involving the four southwestern states of Arizona, California, Colorado, and New Mexico. The project is designed to explore ways in which articulation between community colleges and four-year institutions can be promoted and increased.

WICHE is a nonprofit regional organization helping its member states to work together to provide high-quality, cost-effective programs to meet the education and manpower needs of the West. Member states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

The UCI/ASSIST program was developed at the University of California, Irvine in 1983-84. A companion volume will describe the technical information necessary for installing the program.

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University of California, Irvine
ARTICULATION SYSTEM TO STIMULATE
INTERINSTITUTIONAL STUDENT TRANSFER

UCI/ASSIST

User Manual
for
Counselors and Prospective Transfer Students

Getting Acquainted -

Welcome to UCI/ASSIST! This highly sophisticated, yet easy to use system, allows the prospective transfer student to:

- determine progress toward a degree objective by comparing courses completed or planned prior to transfer with the requirements of a receiving institution,
- find specific courses at one institution which are acceptable in lieu of courses or requirements at another, and
- locate quickly a variety of information about a prospective campus, its services, and its programs.

Using UCI/ASSIST. A user with little or no microcomputer experience soon will be comfortable with the system. Most interactions require only choosing from a "menu" of alternatives. For a thorough introduction to UCI/ASSIST, one of the options on the first menu displayed is for detailed information on the use of the system.

The few keyboard commands are simple--such as:

- **"C"** to continue to the next screen,
- **"L"** to leave a screen of text, or
- **"P"** to print a paper copy of any screen of text you are viewing on the printer at the UCI/ASSIST work station.
- The **ENTER** key commonly is used to advance from one item on the screen to the next, *or* to go to the next screen after typing "C", *or* to confirm any text or response the user wants to enter.

NOTE: On some keyboards, the key will be labeled ***ENTER****. On others, it may be indicated only by the symbol ↵ . All references to the* ***ENTER*** *key in this manual apply to either labeling.*

On occasion, users will type in simple text, such as information about themselves, prospective majors and transfer institutions, course titles, etc. To simplify things, an institution participating in UCI/ASSIST can assign common abbreviations or shortened names for colleges, majors, and courses.

Help! You will notice that one option on each menu is for further information about the other choices. If the user is unclear as to what the options really mean, **help** can be selected by typing its line number.

Let Me Out of Here! Each menu lets you choose to **exit ASSIST,** and return to the beginning of the session for yourself or the next user. There are two other ways of leaving certains parts of the session: (1) Any time you are entering text and wish to leave that screen, type **"END".** This returns you to the previous menu. (2) Other screens provide the option **"L",** returning you to the REGISTRATION MENU, from which you can choose to **exit.**

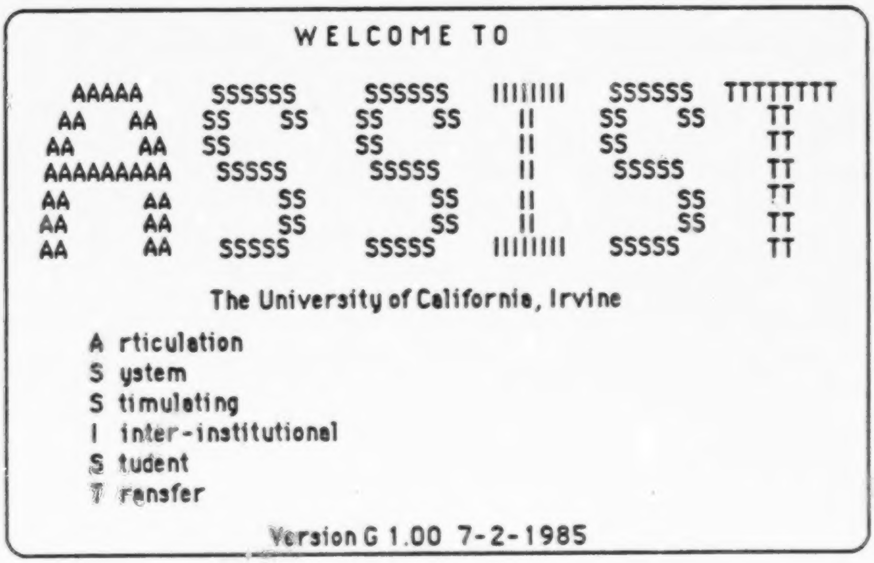
I. BEGINNING A UCI/ASSIST SESSION

Getting Started -

- Turn on the power switches of

  (1) the IBM AT or PC,
  (2) the video monitor, and
  (3) the printer.

If the power already is on, you should see a WELCOME screen.



```
                         WELCOME TO

   AAAAA      SSSSSS     SSSSSS    IIIIIIII   SSSSSS   TTTTTTTT
  AA   AA    SS    SS   SS    SS      II     SS    SS     TT
 AA     AA   SS         SS            II     SS           TT
 AAAAAAAAA    SSSSS      SSSSS        II      SSSSS       TT
 AA     AA        SS         SS       II          SS      TT
 AA     AA        SS         SS       II          SS      TT
 AA     AA    SSSSS      SSSSS     IIIIIIII   SSSSS       TT

               The University of California, Irvine

     A rticulation
     S ystem
     S timulating
     I inter-institutional
     S tudent
     T ransfer

                    Version G 1.00  7-2-1985
```

- Press "P" any time you want to print the screen displayed.
- Press "L" if you want to exit ASSIST.
- Press "C" to continue to another screen.
- Then press the **ENTER** key.

If some other screen is displaying, exit to the WELCOME screen by:

- selecting the **End this session** option on any menu or
- typing **"END"** if it is a screen without a menu.

Registering -

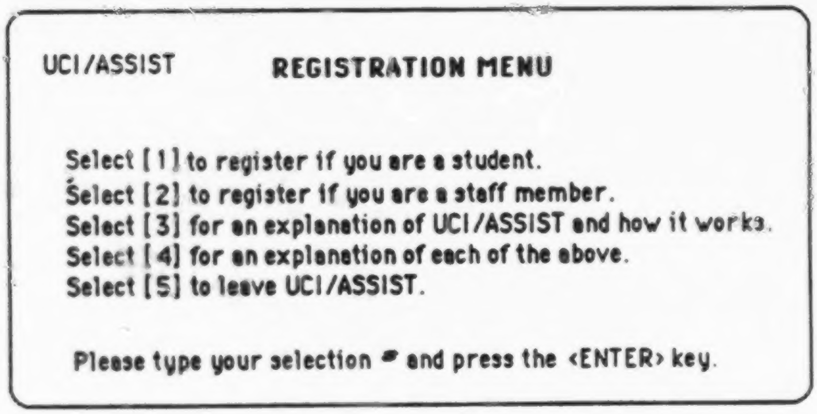
For three reasons, users register in the System at their initial session, and then identify themselves each time they use it subsequently:

(1) Student-specific academic information which may have been entered in earlier UCI/ ASSIST sessions can be stored and retrieved for later reference. Thus, it will not be necessary to enter it a second time.

(2) Depending on arrangements with other UCI/ASSIST institutions and student users, student-specific information may be transmitted to receiving institutions who wish to communicate directly with prospective transfer students. It may be that some prospective transfer institutions also can provide preliminary information on admissibility and placement based on these self-reports.

(3) Self-reported personal and academic data may help persons locally responsible for the System to understand what kind of usage it is getting, what kinds of information prospective transfer students are seeking, what majors and transfer institutions are currently of interest, etc., so that the college can evaluate and enhance its own transfer counseling functions.

After leaving the WELCOME screen, you are presented with the REGISTRATION MENU.



UCI/ASSIST **REGISTRATION MENU**

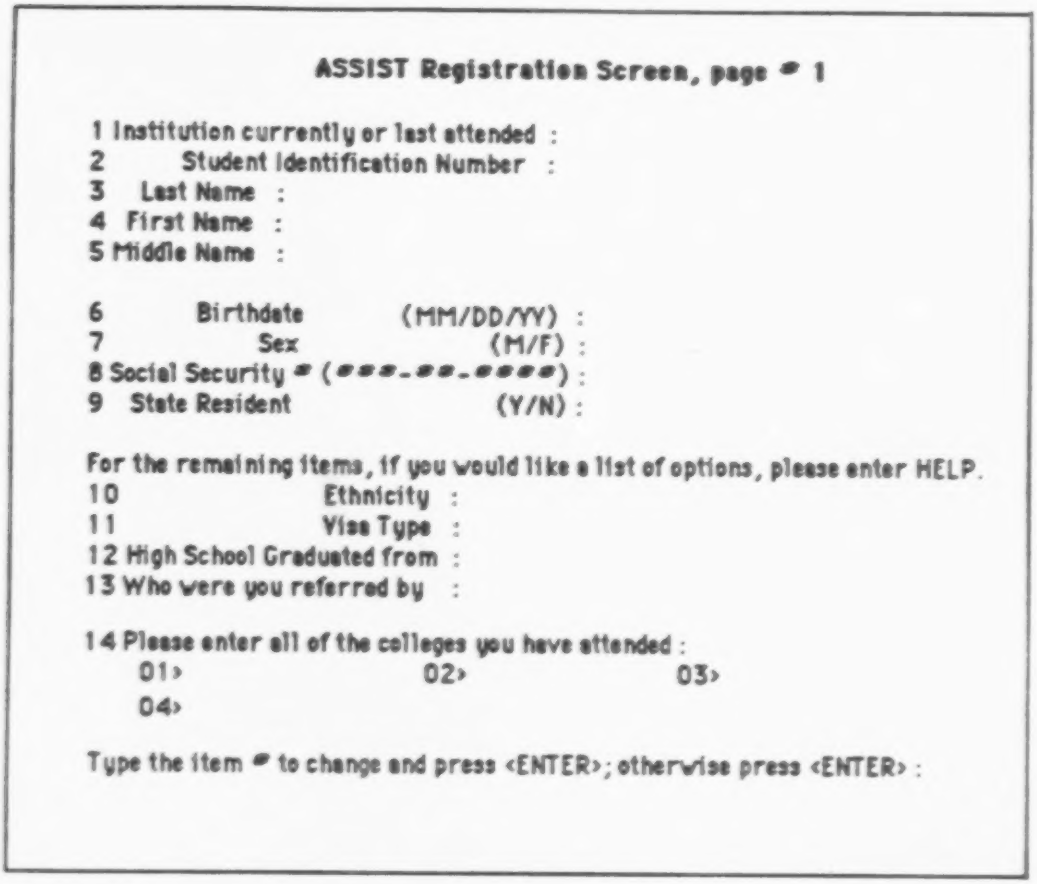
Select [1] to register if you are a student.
Select [2] to register if you are a staff member.
Select [3] for an explanation of UCI/ASSIST and how it works.
Select [4] for an explanation of each of the above.
Select [5] to leave UCI/ASSIST.

Please type your selection and press the <ENTER> key.

- Type the number of your preference and press **ENTER** for the next screen.

NOTE: If you select [5] to exit, you will be asked for your password. Entering it allows the user to leave. Pressing ENTER without the password returns you to the WELCOME screen.

- ***If you are a student,*** choose [1] from the REGISTRATION MENU. The first REGISTRATION screen will appear.



```
                 ASSIST Registration Screen, page # 1

1 Institution currently or last attended :
2        Student Identification Number   :
3   Last Name  :
4  First Name  :
5 Middle Name  :

6        Birthdate          (MM/DD/YY) :
7            Sex                 (M/F) :
8 Social Security # (###-##-####)      :
9  State Resident                (Y/N) :

For the remaining items, if you would like a list of options, please enter HELP.
10                      Ethnicity  :
11                      Visa Type  :
12 High School Graduated from      :
13 Who were you referred by        :

14 Please enter all of the colleges you have attended :
    01>                  02>                  03>
    04>

Type the item # to change and press <ENTER>; otherwise press <ENTER> :
```

- ***To enter new information where none has been recorded,*** complete one item at a time typing:

  (1) the item number and
  (2) the new data.
  (3) Press **ENTER** after each item.

……

Passwords

Personal information in the System is protected from unauthorized viewing by requiring a password each time it is accessed. The user selects a password at the initial session, then enters it at each subsequent registration. Without it, personal information cannot be viewed.

- ***If this is your first use*** of UCI/ASSIST, a prompt will appear at the bottom of the screen after you enter your identification number:

"Type a ? and press <ENTER> if you need information on passwords or type the word that will become your new password and press <ENTER>."

Type in any length alphabetic or numeric password you like, *and remember it.* This will be your identifier from now on, and your record cannot be accessed without it.

- ***Subsequent uses*** of UCI/ASSIST will give you the option to change your password or to continue using your old one. A prompt always will appear at the bottom of the screen:

"To change your password, type the word CHANGE and press <ENTER>. Otherwise, type your password and press <ENTER>."

The **"CHANGE"** command will call up the password entry prompt you used initially.

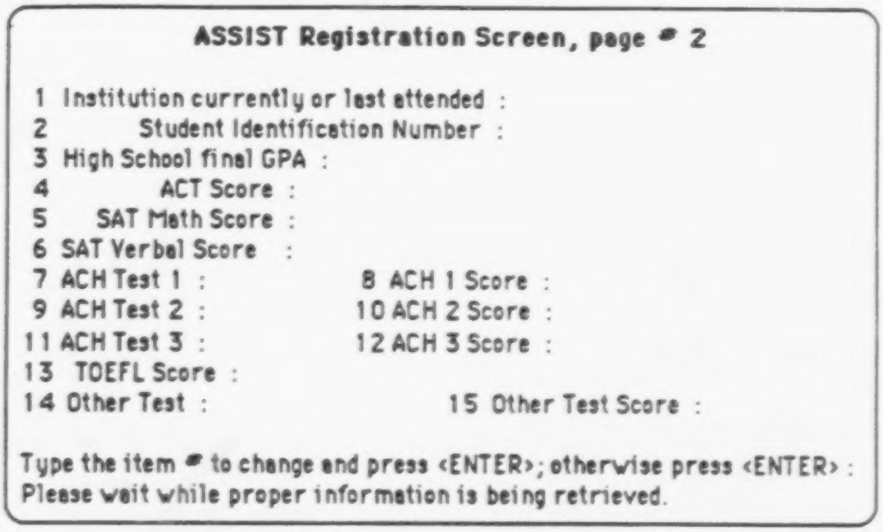
……

- ***If your registration information already has been entered***, and you do not wish to change it, press the **ENTER** key for the next screen.

- ***To change any item which already is shown on this screen,***

  (1) in the space next to the blinking prompt **"CHANGE"** at the bottom of the screen, type the number of the item you wish to change, then
  (2) type the new information.
  (3) Press the **ENTER** key.

After you have provided or verified all information requested by this screen, a second REGISTRATION screen will appear.



```
              ASSIST Registration Screen, page # 2

 1 Institution currently or last attended :
 2        Student Identification Number  :
 3 High School final GPA :
 4          ACT Score :
 5     SAT Math Score :
 6 SAT Verbal Score   :
 7 ACH Test 1 :              8 ACH 1 Score :
 9 ACH Test 2 :             10 ACH 2 Score :
11 ACH Test 3 :             12 ACH 3 Score :
13  TOEFL Score :
14 Other Test :                    15 Other Test Score :

Type the item # to change and press <ENTER>; otherwise press <ENTER> :
Please wait while proper information is being retrieved.
```

- ***If not already recorded,*** type in:
  (1) your high school grade point average (GPA),
  (2) scores on admissions tests you may have taken, such as the Scholastic Aptitude Test (SAT), or the American College Test (ACT),
  (3) subjects and scores for up to three Achievement Tests (Ach) of the College Board,
  (4) any other relevant tests, and
  (5) your score on the Test of English as a Foreign Language (TOEFL), if you have taken it.

- ***If your information already has been entered,*** and you do not wish to change it, press **ENTER** for the next screen.

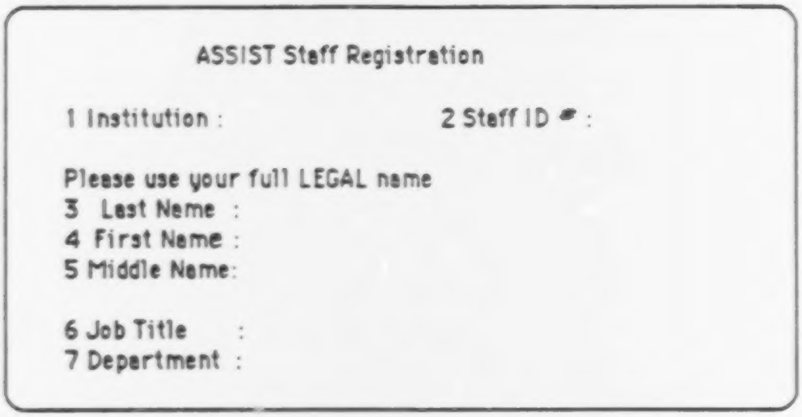
- ***If information on the screen needs changing:***
  (1) in the space next to the blinking prompt **"CHANGE"** at the bottom of the screen, type the number of the item you wish to change, then
  (2) type the new information.
  (3) Press **ENTER**.

- After you have made all the changes you want to, type **"END."**

When you have finished registering, a message will tell you:

"Please wait while proper information is being recorded."

- ***If you are a staff member,*** choose **[2]** from the REGISTRATION MENU to show the STAFF REGISTRATION screen.



```
              ASSIST Staff Registration

  1 Institution :                    2 Staff ID # :

  Please use your full LEGAL name
  3  Last Name  :
  4  First Name :
  5 Middle Name:

  6 Job Title    :
  7 Department  :
```

- ***To enter new information where none has been recorded,*** work with one item at a time, typing:

  (1) the item number and
  (2) the new data.
  (3) Press **ENTER** after each item.

- ***If your information already has been entered,*** and you do not wish to change it, press **ENTER** for the next screen.

- ***To change any item which already is shown on this screen,***

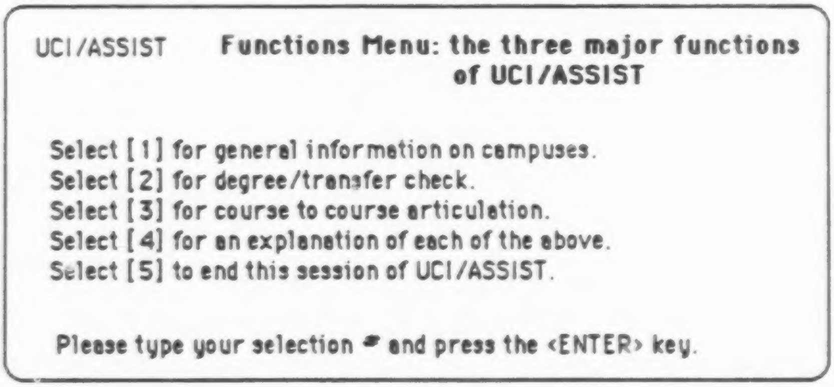
  (1) in the space next to the blinking prompt **"Change"** at the bottom of the screen, type the number of the item you wish to change, then
  (2) type the new information.
  (3) Press **ENTER**.

This completes your registration. The next screen to display is the FUNCTIONS MENU.

NOTE: You can exit UCI/ASSIST any time during the registration process by typing "END".

II. SELECTING A FUNCTION

The FUNCTIONS MENU is the "traffic controller" of UCI/ASSIST. From it the user selects which of the system's features he or she wants to utilize.



UCI/ASSIST **Functions Menu: the three major functions of UCI/ASSIST**

Select [1] for general information on campuses.
Select [2] for degree/transfer check.
Select [3] for course to course articulation.
Select [4] for an explanation of each of the above.
Select [5] to end this session of UCI/ASSIST.

Please type your selection # and press the <ENTER> key.

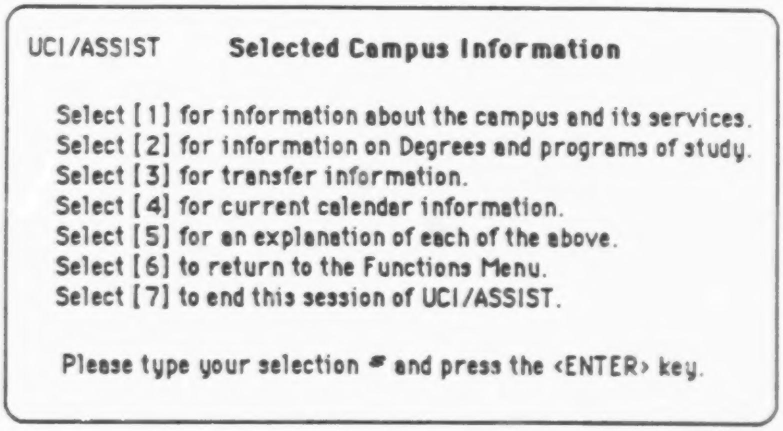
As usual, this menu includes options for **help** [4] and to **exit** [5]. After using any of the options, the user automatically is returned to the FUNCTIONS MENU.

UCI/ASSIST offers the user three primary transfer planning functions:

- Accessing information about an institution, its programs and services.
- Assessing and planning progress toward a specific degree objective at a given transfer (receiving) institution -- called **"Transfer/Degree Check."**
- Finding specific courses at one institution which transfer for credit and are acceptable in lieu of courses or requirements at another -- called **"Single Course Articulation."**

To get information about a participating institution -

- Press **"1"** on FUNCTIONS. A list of ASSIST-participating colleges and universities will be displayed. Type the number of the campus you want to know about. A SELECTED CAMPUS INFORMATION MENU for that institution will appear.



```
UCI/ASSIST        Selected Campus Information

   Select [1] for information about the campus and its services.
   Select [2] for information on Degrees and programs of study.
   Select [3] for transfer information.
   Select [4] for current calendar information.
   Select [5] for an explanation of each of the above.
   Select [6] to return to the Functions Menu.
   Select [7] to end this session of UCI/ASSIST.

    Please type your selection # and press the <ENTER> key.
```

Again, this menu provides options for **help** [5] and to **exit** [7], as well as to return directly to the FUNCTIONS MENU [6].

Options [1] through [4] direct you to kinds of textual documents about the campus you are considering. Continuing to press **"C"** and **ENTER** lets you progress through each page of the document, and eventually will return you to the first page of the one you have just been reading. Typing **"END"** will return you to the SELECTED CAMPUS INFORMATION MENU when you want to move to another kind of information about that campus.

To perform a Transfer/Degree Check -

This function compares courses already taken (or courses you plan to take) with the general and major requirements of a receiving institution whose curriculum is articulated with that of the sending institution(s) which you have attended. Because there is too much information to display on the screen, the result is a document printed at the work station. This printout will tell you:

- which requirements have been met by which transferring courses,
- which requirements remain to be satisfied,
- how remaining requirements may yet be satisfied prior to transfer,
- which courses transfer with credit toward the degree, but do not have specific equivalencies, and
- which courses do not transfer to the institution in question.

****

The UCI/ASSIST Academic Record

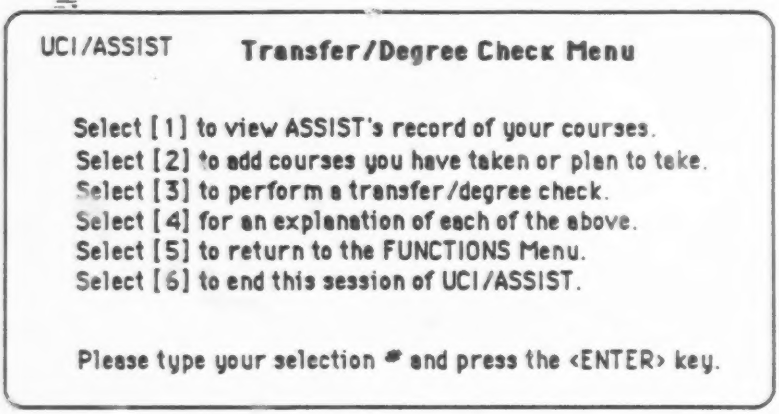
Obviously, it is essential that UCI/ASSIST work with the prospective transfer student's entire academic history, the same as any transfer institution would. The system can acquire this transcript information from two sources:

(1) The user may type in the requested detail on course titles and numbers, units, terms, institutions, and grades received. *This method has the obvious shortcomings of any self-reports. It must be stressed that the intended use of UCI/ASSIST is as a planning tool: It is* ***not*** *an official record or a binding contract, unless individual participating institutions elect to treat it as such.*

(2) A UCI/ASSIST site may develop the computer capability to interface the official academic record directly with UCI/ASSIST, thus improving reliability and eliminating the need for key entry. *However, because receiving institutions later may invoke a variety of regulations on repeated courses , limitations of credit in certain subjects, and sequencing of courses, the planning process still should be regarded as unofficial.* Because electronic interface would involve procedures unique to the sending college, this manual does not attempt to address them.

****

- Press "**2**" from FUNCTIONS. A TRANSFER/DEGREE CHECK MENU will appear.



```
UCI/ASSIST        Transfer/Degree Check Menu

    Select [1] to view ASSIST's record of your courses.
    Select [2] to add courses you have taken or plan to take.
    Select [3] to perform a transfer/degree check.
    Select [4] for an explanation of each of the above.
    Select [5] to return to the FUNCTIONS Menu.
    Select [6] to end this session of UCI/ASSIST.

    Please type your selection # and press the <ENTER> key.
```

Again, this menu provides options for **help** [4] and to **exit** [6], as well as to **return** directly to the FUNCTIONS MENU [5].

- In order to have a Transfer/Degree Check performed, the user needs to:

  (1) Check the list of courses which previously have been entered in UCI/ASSIST (if any),
  (2) enter or change details pertaining to courses already taken or planned,
  (3) then activate the Transfer/Degree Check function itself.

  These are done as follows:

- ***To verify courses already recorded*** by UCI/ASSIST, press "1" from TRANSFER/DEGREE CHECK MENU.

****

NOTE: *If you are a staff member user, you will see the following:*

"You must specify a student to list transcript data for.
Enter the abbreviation for the institution:
Enter the student ID #:"

Type in all information as requested.

****

You then will be asked:

"Would you like this list of courses on the printer (Y/N): "

- **"Y"** (YES) will reproduce the list on the printer, while **"N"** (NO) will display the list on the screen.

- ***To add or change courses,*** press **"2"** from TRANSFER/DEGREE CHECK MENU.

****

NOTE: *If you are a staff member user, you will be asked the following:*

"You must specify a student to enter data for.
Enter the institution (e.g. UCI) the student attended:
Enter the student ID # or last name: "

Type in the information requested.

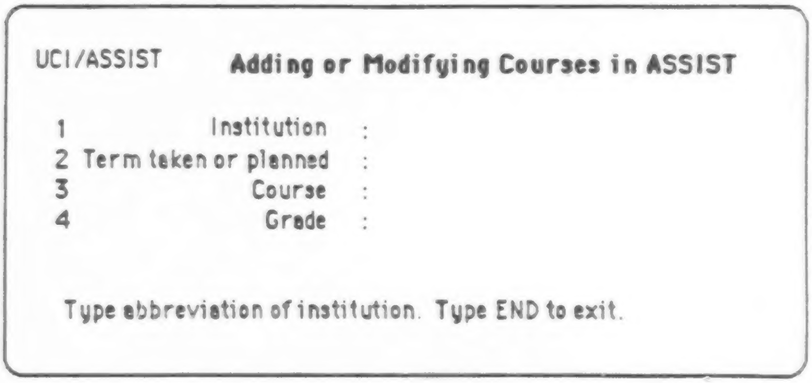
****

While the System searches for courses previously entered, a message will appear:

"Retrieving courses. Please wait."

If courses have been entered, a list of courses then is displayed, allowing the user to check and change them, if necessary.

- Pressing **ENTER** will display a screen that allows the user to enter or change details about a course taken or planned.



```
UCI/ASSIST        Adding or Modifying Courses in ASSIST

 1             Institution  :
 2  Term taken or planned   :
 3                  Course  :
 4                   Grade  :


  Type abbreviation of institution.  Type END to exit.
```

- Each screen accommodates only one course. However, you readily can enter additional courses simply by pressing **ENTER** after providing information at the **"Grade"** prompt. This will continue to present you with new screens.

- Should you not wish to enter or change additional courses, type **"END"**. A message confirms that all courses now in UCI/ASSIST are recorded for future reference:

  " Recording classes for future retrieval. Please wait. "

Then you are returned to the TRANSFER/DEGREE CHECK MENU.

- ***To have the Transfer/Degree Check performed***, press "3" from TRANSFER/DEGREE CHECK MENU. You are asked the following:

" Enter abbreviation of Institution to do degree check at: "

If the institution you type in is among the UCI/ASSIST participants, a list of majors available at that institution will be shown:

" Available majors at ______ "

****

NOTE: At this point, if you are a staff member user, you will be instructed as follows:

"Please specify a student to do a degree/transfer check for.
Enter the institution (e.g. UCI) the student attended:
Enter the student ID # or last name: "

Type in the information requested.

****

- Type in the line number corresponding to any major you are considering. A message indicates that a brief time will elapse:

" Degree check is underway. Please stand by. "

If the institution chosen is not a participant, the user is advised:

" Institution does not exist on the system.
Press the <ENTER> key to continue. "

- When you choose option [6] to **exit**, you will be asked the following :

"Would you like to end this session with UCI/ASSIST (Y/N) ?

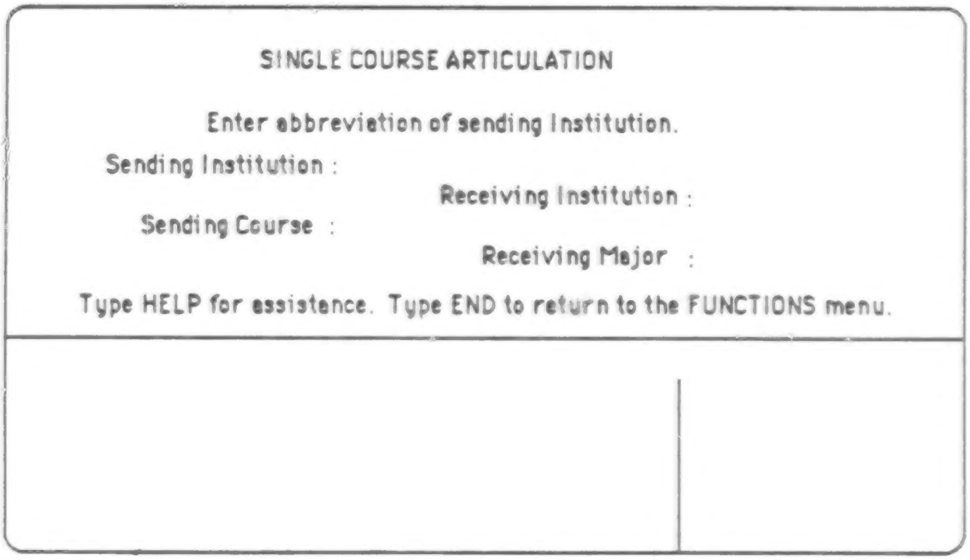
Answering **"Y"** (YES) to this question will terminate this session while an **"N"** (NO) returns you to the TRANSFER/DEGREE CHECK MENU.

To articulate single courses -

- Press **"3"** from the FUNCTIONS MENU. The following SINGLE COURSE ARTICULATION screen allows you to equate courses at a sending institution and at a receiving institution by entering respectively:

  (1) the college from which you plan to transfer a course (Sending Institution),
  (2) the course you have taken or plan to take, and
  (3) the college or university to which you are considering transferring the course (Receiving Institution).

Because courses will articulate in different ways depending upon the prospective major, you are asked to indicate that, as well.

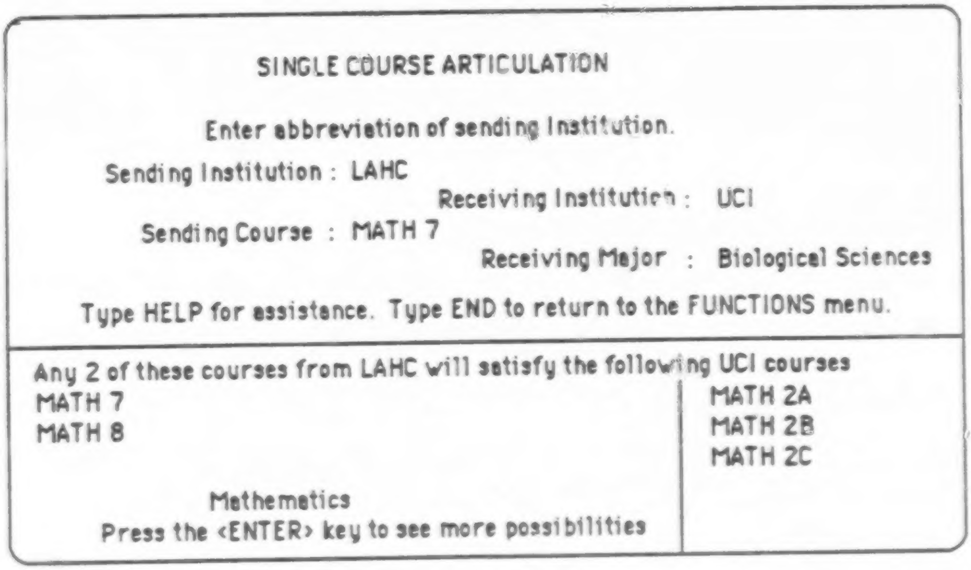


```
                SINGLE COURSE ARTICULATION

            Enter abbreviation of sending Institution.
     Sending Institution :
                           Receiving Institution :
       Sending Course  :
                                Receiving Major  :

   Type HELP for assistance. Type END to return to the FUNCTIONS menu.
```

If, for example, you have taken Math 7 at Los Angeles Harbor College, and want to know what it equates with in the Biological Sciences major at UC Irvine, you would create the following screen:

(1) Type in the abbreviation of the college from which the course would transfer (**"LAHC"**).
(2) Type in the course for which you want to find the equivalent at the receiving institution (**"Math 7"**).
(3) Type in the abbreviation of the institution to which you are considering transfer (**"UCI"**).
(4) For a list of majors available at the receiving institution, type a "?"
(5) Type in the number corresponding to the major you selected.

The lower section of the screen will display the articulation. In this case, the LAHC Math 7-8 sequence would satisfy UCI Math 2 A-B-C. *(Because of the difficulty in articulating quarter courses with semester courses, the two institutions have chosen to articulate sequences rather than individual courses.)*



```
                SINGLE COURSE ARTICULATION

           Enter abbreviation of sending Institution.

     Sending Institution : LAHC
                              Receiving Institution :  UCI
        Sending Course  : MATH 7
                                 Receiving Major  :  Biological Sciences

   Type HELP for assistance. Type END to return to the FUNCTIONS menu.
-----------------------------------------------------------------------
 Any 2 of these courses from LAHC will satisfy the following UCI courses
 MATH 7                                             | MATH 2A
 MATH 8                                             | MATH 2B
                                                    | MATH 2C

               Mathematics                          |
    Press the <ENTER> key to see more possibilities |
```

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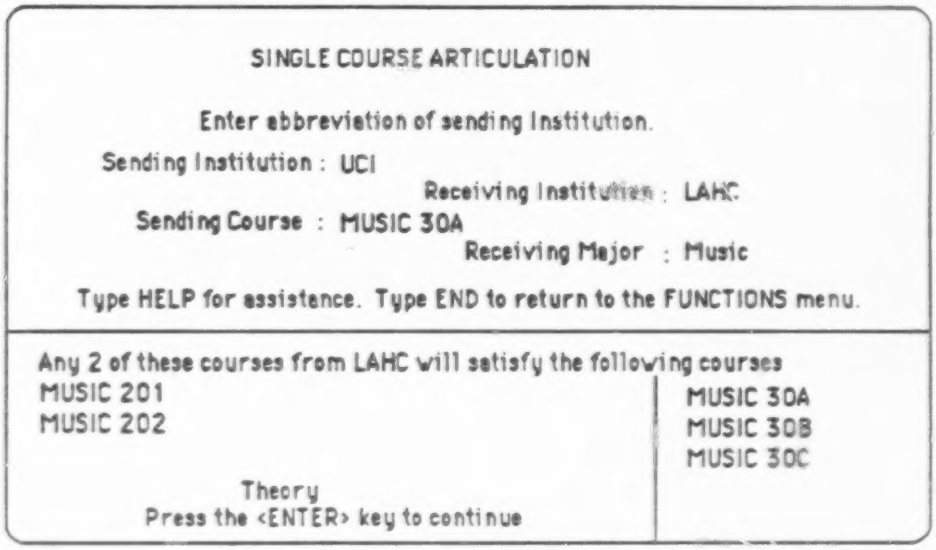
Note that this function of UCI/ASSIST can work in reverse, as well. That is, if the course or requirement at the receiving institution is known, and you want to find the sending institution course which articulates with it, simply reverse the roles of the campuses. For example, if you know that the UCI major in Music has a requirement 30 A-B-C, and you want to know which LAHC courses satisfy it, UCI is treated as the sending institution and LAHC as the receiving institution. The resulting screen would look like this:



```
                    SINGLE COURSE ARTICULATION

              Enter abbreviation of sending Institution.
      Sending Institution :  UCI
                               Receiving Institution :  LAHC
        Sending Course  :  MUSIC 30A
                                  Receiving Major   :  Music

  Type HELP for assistence. Type END to return to the FUNCTIONS menu.
-----------------------------------------------------------------------
Any 2 of these courses from LAHC will satisfy the following courses
MUSIC 201                                       |  MUSIC 30A
MUSIC 202                                       |  MUSIC 30B
                                                |  MUSIC 30C
                  Theory                        |
     Press the <ENTER> key to continue          |
```

GLOSSARY

Academic Information/data/record: Information about the academic history of the UCI/ASSIST student-user. In the Registration phase of UCI/ASSIST, it consists of high school data and standardized admissions test scores. For purposes of the Transfer/Degree Check, it comprises records of the entire college career--typically, courses taken, institutions, terms, and grades received. Such information can come from two sources: (1) Self-reports entered by the student on screens for that purpose, or (2) direct interface of the student record to UCI/ASSIST from the computer record maintained by the collegiate institution the student currently is attending.

Articulation: The coordination of curriculum between collegiate institutions for purposes of facilitating transfer and making an orderly and efficient transition from one to the other. Generally, it involves (1) prior determination of courses which transfer from one institution to another for credit toward the degree, and (2) agreements on courses or sequences of courses which may be taken in lieu of specific requirements or categories at the degree-granting institution.

C: A single command character, followed by **ENTER**, to continue from one UCI/ASSIST screen to the next.

CHANGE: A typed command option on certain data entry screens allowing a user to change information previously entered.

Commands: Individual keyboard characters struck (**C, P, L,** for instance) or words typed (**END, CHANGE**) which activate their respective UCI/ASSIST processes.

Course: Curricular information entered into UCI/ASSIST for Single Course Articulation or for Transfer/Degree Check. Contains departmental designation (often in shortened form) and number, e.g. **Math 7, German 2A.**

Document: Text organized about a topic, and able to be specifically accessed and exited by the user. For instance, *Information on degrees and programs of study.*

Electronic Interface: The capability of an institution's computer-based academic record to provide student data directly to a UCI/ASSIST system, so that it can use instantly, without manual entry, the most current and accurate information about the student's official collegiate record.

"END": A typed command *used only on data entry screens* which allows the user to exit to another screen or menu.

ENTER: A single key command which causes (a) typed text to be confirmed in UCI/ASSIST, (b) other commands or menu selections to be activated, or (c) the cursor to advance from one item to the next on a screen. The **ENTER** key is situated on the right of the IBM PC keyboard. On the IBM PC AT, it generally is labeled **ENTER,** along with the symbol ↵ , while on the basic PC, it may bear only the ↵ symbol.

Equivalency: The specific substitution of one course for another.

Exit: A command activated (1) by the key **L,** (2) by typing **"END"** on a data entry screen, or (3) by selecting an **exit** option on a menu , allowing one to leave a screen and return to another starting point in UCI/ASSIST.

Functions: The principal menu in UCI/ASSIST, enabling one to select (a) Single Course Articulation, (b) a Transfer/Degree Check, or (c) campus-specific information, as well as to exit or to seek help.

Grade: Characters reflecting a course grade entered by the user into UCI/ASSIST for purposes of the degree check, for example B+. For a course in progress or yet to be taken, **"Planned"** may be entered for the grade.

Help: A choice on each UCI/ASSIST menu which allows the user to get additional information about the other options available.

In lieu of: Substitution of a course, sequence, or requirement by similar work at another institution, but not implied equivalency.

Institution: A college or university involved in a student's transfer planning.

L: A single command character, followed by **ENTER**, to leave (or exit) from a screen and return to the preceding menu.

Limitations of credit: A practice among receiving institutions to limit the number of units which can be presented by transfer students in certain subject areas. Such limitations generally parallel lower division restrictions applied to native students.

Menu: A screen displaying a list of optional interactions with UCI/ASSIST. The user needs not type commands, but rather selects the number of the preferred menu option (followed by **ENTER**).

Participating Institution: A college or university whose information on programs of study, majors, services, transfer requirements, and articulation can be accessed through UCI/ASSIST.

Password: A string of alphabetic or numeric characters, established confidentially by a specific user, which must be entered at any UCI/ASSIST session to gain access to that user's personal data.

Prompt: A statement by a UCI/ASSIST program, usually at the bottom of a screen, which asks the user to make some appropriate interaction.

Receiving Institution: A college or university to which a student plans to transfer.

Registration: The process of gaining access to a UCI/ASSIST session.

Screen: A display on the video monitor providing a given number of transactions with UCI/ASSIST or conveying textual information.

Sequence: Courses intended to be taken by a student in a required order.

Single Course Articulation: A UCI/ASSIST function which enables the student to equate courses between two institutions.

Student specific Information: Personal and academic data entered manually by a UCI/ASSIST user, or electronically from another source, which can be identified with the individual and which is used to explicate the student's academic history.

Term: A semester, quarter, or other session during which a particular course has been taken or is planned to be taken.

Transfer credit: Acknowledgement by a receiving institution that sending institution work may be applied toward the unit total required for the degree, though not necessarily to satisfy specific subject requirements.

Transfer/Degree Check: A UCI/ ASSIST feature enabling the prospective transfer student to determine progress made to date, and requirements yet to satisfy, toward any number of prospective majors in any participating transfer institutions.

ACT

The ACT ASSET Program for Two-Year Institutions:

A Student Advising, Placement, and Retention Service

The ACT ASSET Program is a locally-scored success-oriented assessment program combining academic skill measures with immediate advising and placement services. It is designed for group administration for staff time efficiency and includes immediate scoring capabilities for walk-in orientation and registration programs. A choice of NCS, Scan-tron, and self-scoring answer sheets is offered.

Placement advising information in the ASSET Program is built on the following measures:

BASIC Skill Measures	ADVANCED Skill Measures (administered to reflect program goals of students)
Numerical Skills (18 minutes)	Elementary Algebra (25 minutes)
Reading Skills (20 minutes)	Intermediate Algebra (25 minutes)
Language Usage (11 minutes)	College Algebra (25 minutes)
	Advanced Language Usage (25 minutes)

A "letter to students" (locally-tailored and produced) introduces the process to students. Complementing the letter is the Educational Planning Form, designed to immediately integrate information about the student's educational background, plans, and needs with the assessment results. A four-part self-carboning document, the form immediately provides a copy of the results for the student, the advisor, testing office, and the research office. Through the use of campus-tailored advising worksheets keyed to the institution's catalog and learning services, group leaders are able to efficiently prepare students for registration. The ASSET Action Guide includes samples of these worksheets and other ideas for implementation.

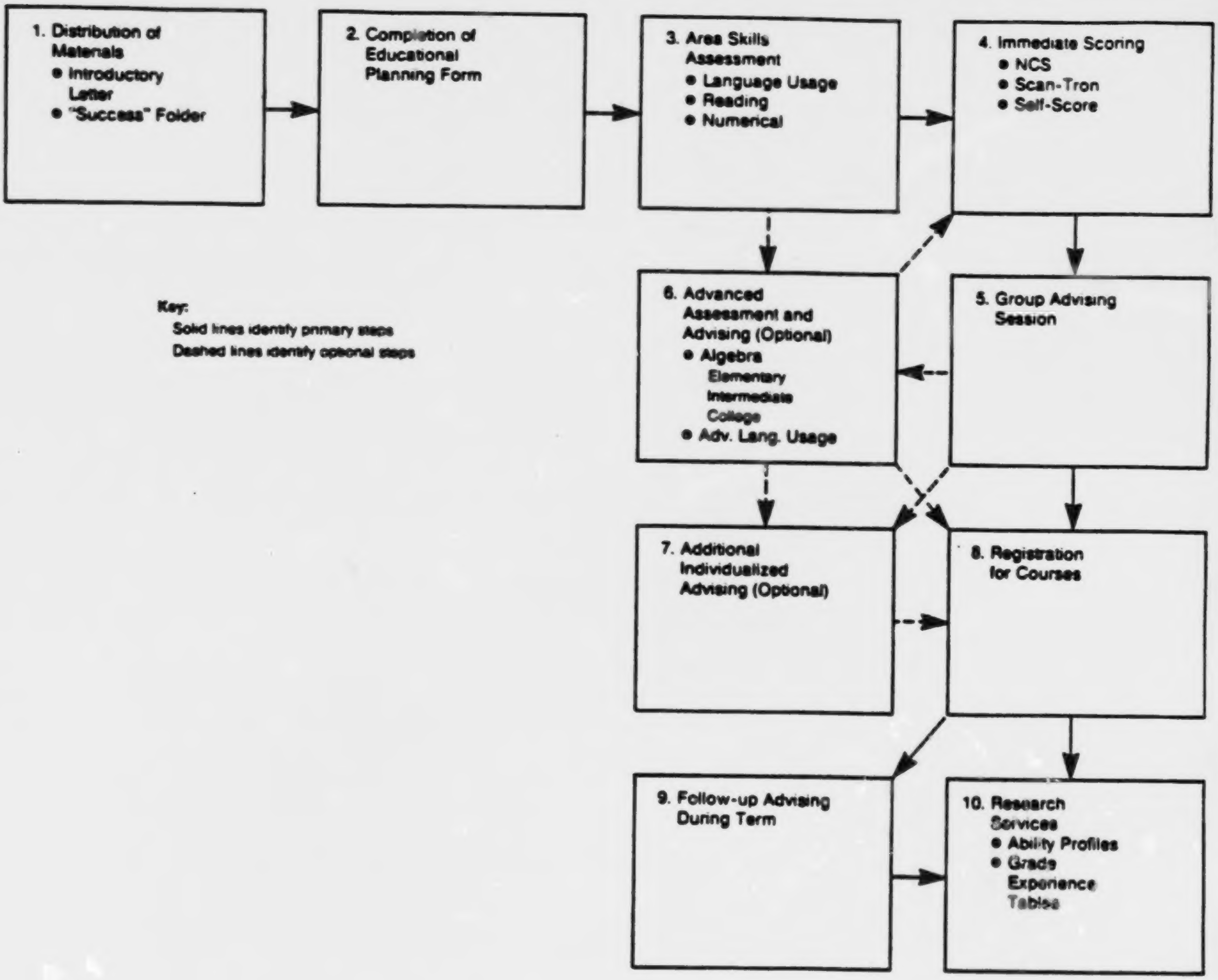
As a result of quickly bringing together the "assets" of the student and the institution at the time of entry, ASSET results in a highly positive first impression for students. It also provides information to aid staff members as they deliver intrusive retention services targeted to students with specific needs.

The ACT ASSET Program also incorporates a research support system for accountability, placement, and retention information. The two key features of the system are an Ability Profile Report for students in specific programs or majors and Grade Experience Tables relating assessment results to course grades (up to ten locally selected courses) to provide localized placement information.

In summary, the ACT ASSET Program is designed to provide a positive, effective, systematic approach to assisting students as they begin their educational experience at two-year institutions. The goal of these services is to equip students, through sound advising and appropriate course placement services, to attain greater learning success, with the resulting outcome of increased retention.

2201 North Dodge Street, P.O. Box 168
Iowa City, Iowa 52243
(319) 337-1000

Flowchart of the ACT ASSET Program Steps


1. Distribution of Materials
• Introductory Letter
• "Success" Folder
2. Completion of Educational Planning Form
3. Area Skills Assessment
• Language Usage
• Reading
• Numerical
4. Immediate Scoring
• NCS
• Scan-Tron
• Self-Score
5. Group Advising Session
6. Advanced Assessment and Advising (Optional)
• Algebra
Elementary
Intermediate
College
• Adv. Lang. Usage
7. Additional Individualized Advising (Optional)
8. Registration for Courses
9. Follow-up Advising During Term
10. Research Services
• Ability Profiles
• Grade Experience Tables
Key:
Solid lines identify primary steps
Dashed lines identify optional steps

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Project ASSET: Assessment of Skills for Successful Entry and Transfer

- Transfer to Employment
- Transfer to Further Education

A Brief Introduction to the Project
Abstracted from the Proposal Presented by
The American College Testing Program to
The Los Angeles Community College District

Factors in Student Retention

There has been considerable recent interest in the identification of organizational or institutional factors that contribute to student retention. A national survey entitled "What Works in Student Retention" (WWISR) was conducted in spring, 1979, by the American College Testing Program and the National Center for Higher Education Management Systems to obtain information in this area. The survey resulted in the identification of a large number of separate and distinct efforts underway on campuses for the purpose of improving student retention.

Before describing retention efforts, each respondent was asked to indicate the characteristics they felt were associated with dropout-prone students. Listed in order of perceived importance, these characteristics are:

- low academic achievement
- limited educational aspirations

- indecision about major/career goals
- inadequate financial resources for education
- economically disadvantaged background
- first-generation college student
- commuter student

These findings carry a message of importance to any institution or unit striving for improved student retention, but especially for institutions such as urban community colleges, whose mission often includes serving large numbers of students having such characteristics. That message is, clearly, that more and better services are required if retention (and future potential transfer) of students is to be enhanced.

The WWISR study also examined administrators' perceptions of the positive campus characteristics that may contribute to improved student retention. Listed in order of importance, these findings are:

- caring attitude of faculty and staff
- high quality of teaching
- adequate financial aid
- student involvement on campus
- high quality of advising
- excellence of counseling services
- concern for student/institutional fit
- admissions geared to graduation
- early-alert system for detecting student academic difficulties.

Information about the most common efforts undertaken by institutions to improve student retention was also obtained in the WWISR study and is presented below. The number in parentheses represents the percentage of responding institutions that adopted each strategy to improve retention, either by modifying existing services or by introducing new services. The most common efforts are as follows:

- improvement of academic advising (53%)
- special orientation interviews (40%)
- exit interviews (40%)
- special counseling programs (36%)
- early-alert system (33%)
- academic support/learning services (32%)
- use of students as peer advisers and counselors (30%)
- curricular innovations for credit (29%)
- expanded placement services (24%)
- new extra curricular activities (20%)
- undeclared major services (18%)

These keys to success provide a useful reference foundation for consideration during the process of developing an intrusive, systematic approach to student success and retention. As stated by Dr. Lee Noel, co-director of the WWISR study with Dr. Philip E. Beal, "The true goal of such a program is an improved service design and delivery. Improved student retention and increased transfer to further education or successful entry into career opportunities is the resulting by-product."

The WWISR study further highlighted the need to tailor specific action programs to the needs and characteristics of various dropout-prone groups. Among the groups targeted by institutions to receive particular retention improvement action strategies were: high-risk admissions and/or low academic new students (first-generation, or those from groups that were under-represented in postsecondary education); students with undeclared majors; and adults, particularly returning women. Similar models of targeted service delivery would also be expected to contribute positively to the facilitation of increased rates of transfer to further educational opportunities.

In a recent article entitled "Transfer Attrition Points of View: Don't Close the Door" (Community and Junior College Journal, December-January 1981-82, Volume 52, Number 4), Dr. John E. Roueche writes that colleges must begin "serious pre-assessment of student entry-level skills when students come to the campus" as a first step in preparing to provide accurate counseling and guidance to entering students. As identified by Dr. Roueche in other writings, a necessary companion step is the joint review of this assessment information by the student and an advisor. Such a review would place the emphasis on identifying both strengths and weaknesses and would further assist students with deficiencies by linking them with institutional resources designed to improve the student's opportunities for development and success.

Project ASSET

In response to the goals and needs identified by the Los Angeles Community College District, the aforementioned retention concepts, and in recognition of the potential contributions of assessment and advising to these processes, ACT puts forth the services contained in this proposal. With a positive emphasis on gaining the active involvement of the student as a critical ingredient in the process, Project ASSET: Assessment of Skills for Successful Entry and Transfer has been developed to address retention factors within a practical approach cognizant of the staff time and resource realities of the District.

GUARANTEED STUDENT TRANSFER PROGRAM
CONTRACT FOR ADMISSION TO COLORADO STATE UNIVERSITY

Student's name (last, first, middle)	Social Security Number
Community College of Denver System College (Denver Auraria, Front Range, Red Rocks)	Student's program/major and/or degree pursued at CCD System College
Student's proposed major at CSU	Student's proposed entry term/year to CSU

Colorado State University, the Community College of Denver System colleges, and the student named above hereby enter into a contract for guaranteed admission in the specified major no later than the term and year indicated and contingent upon successful completion of the requirements listed below:

1. A minimum grade point average of _____ is required in courses attempted at Community College of Denver System colleges. (GPA requirements for admission vary between academic programs at CSU. A minimum GPA of 2.3 for students completing 28-5 semester credits and 2.0 for students completing 60 or more credits is required. Admission to impacted programs require a higher GPA which will be determined and disseminated by an annual memorandum for execution of contracts for the succeeding year.)

2. Completion of the approved curriculum for the major selected as specified below or on an attached sheet. General education course requirements for an AA or AS degree must be included to meet the requirements of the State Board for Community Colleges and Occupational Education. A maximum of 64 semester credits will be accepted in transfer.

3. Academic, disciplinary, and financial standing must be clear.

This agreement will remain in force through the beginning of the student's proposed entry term to Colorado State University. Any extension of this agreement is subject to the approval of all parties involved.

COMMUNITY COLLEGE OF DENVER SYSTEM		COLORADO STATE UNIVERSITY	
Authorized officer, title (for example: dean, division director, registrar, admissions officer)	date	Authorized officer, title	date
Student's signature	date		

Note for Foreign Students: Foreign students wanting to transfer to CSU must submit results of the Test of English as a Foreign Language (TOEFL). Scores of 525 and above are required for an unconditional admission. A conditional admission is possible with scores of 500 to 524. Students admitted conditionally are referred to the CSU Intensive English Program for further evaluation of English proficiency.

(Copies to: CSU, CCD System College, Student)
J:EDSV5:bl
7/18/84

0094-11-10/83

COLORADO STATE UNIVERSITY
OFFICE OF ADMISSIONS AND RECORDS
FORT COLLINS CO 80523
303 491-7201

COMMUNITY COLLEGE OF DENVER
1600 DOWNING STREET
DENVER CO 80218
303 866-2721

MEMORANDUM OF AGREEMENT

The institutions shown above hereby enter into an agreement to sponsor a Guaranteed Student Transfer Program for the purpose of allowing students to contract for upper-division placement at Colorado State University after satisfactorily completing a prescribed curriculum at Community College of Denver.

The programs currently available under this agreement to students at Community College of Denver are reflected on the attachment which will be updated annually. The minimum required grade point average for each program is also subject to change and will be promulgated annually. Students participating in this program will enter into a contract with both institutions. The contract will be approved and signed by all three parties. Administrative procedures for affecting this agreement will be agreed upon by both institutions.

For: Colorado State University:

5/1/84
Academic Vice President Date

President Date

For: Community College of Denver:

5/1/83
Academic Officer Date

3 May 84
President Date

Attachment

GUARANTEED STUDENT TRANSFER PROGRAMS
BETWEEN COLORADO STATE UNIVERSITY AND COMMUNITY COLLEGE OF DENVER

Program	Date Authorized
Anthropology	May 1, 1984
Art	May 1, 1984
Biological Sciences	May 1, 1984
Business	May 1, 1984
Chemistry	May 1, 1984
Computer Science	May 1, 1984
Economics	May 1, 1984
Engineering	May 1, 1984
English	May 1, 1984
Foreign Languages	May 1, 1984
Geology	May 1, 1984
History	May 1, 1984
Humanities	May 1, 1984
Industrial Construction Management	May 1, 1984
Industrial Sciences and Technology Education	May 1, 1984
Industrial Technology	May 1, 1984
Mathematics	May 1, 1984
Music	May 1, 1984
Philosophy	May 1, 1984
Physical Sciences	May 1, 1984
Physics	May 1, 1984
Political Science	May 1, 1984
Pre-Veterinary Medicine	May 1, 1984
Psychology	May 1, 1984
Social Sciences	May 1, 1984
Sociology	May 1, 1984
Speech Communications	May 1, 1984
Statistics	May 1, 1984
Technical Journalism	May 1, 1984
Theatre Arts	May 1, 1984
Trade and Industrial Education	May 1, 1984

5/1/84

COMMUNITY COLLEGE OF DENVER SYSTEM AND COLORADO STATE UNIVERSITY
GUARANTEED STUDENT TRANSFER PROGRAM

Instructions For Completion Of The Contract For Admission

Complete the following information:

Student's Name: Social Security Number:

Name of the CCD System College:

Student's academic program/major and/or degree program at CCD System college:

Student's proposed major at CSU: Student's proposed entry term to CSU: (list term and year)

The following programs have specific grade point requirements for admission:

College of Business	- 3.00
College of Engineering	- 3.00
Computer Science	- 3.50
Technical Journalism	- 3.00

Indicate the GPA requirement necessary for entry into the student's proposed major at CSU.

List the specific courses the student will complete at the CCD System college and/or attach the program sheet.

Other pertinent information:

Be sure to check the frequency of offering of the courses at your location; i.e., are the required courses offered frequently at your location?

1. CSU will accept credit which has been transferred from other institutions.
2. If CSU changes requirements after the contract is signed, the contract will still be honored.
3. CSU would prefer that the AA or AS degree be completed. The entire list of courses on the contract should be completed.
4. Foreign students must submit results of Test of English as a Foreign Language (TOEFL). Scores of 525 and above are required for unconditional admission. Conditional admission is possible with scores of 500 to 524. Students admitted conditionally will be referred to the CSU Intensive English Program for further evaluation of English proficiency.

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Guaranteed Student Transfer Program

You,
the Community College of Denver System
and Colorado State University

June 28, 1984

THIS LETTER MAILED TO EACH OF THE PERSONS LISTED ON THE ARTICULATION LISTING. (100)

Most of you are aware that Dr. Nancy Cameron, who was working with you on the articulation project, has left the BEF staff and has been replaced by Ms. Lena Castillo.

As you will recall both "A Joint Memorial Requesting that the Board of Educational Finance to study the Transferability of Credit and Grades Between Institutions of Higher Educational System," and "A Statewide Plan for Postsecondary Education in New Mexico - 1983-87," have emphasized the need for better articulation. Articulation agreements for specific program areas - allied health, agriculture, business, computer science/mathematics, and engineering/engineering technology - were identified in the "Plan."

In order to give the articulation project continuity, a meeting of the various articulation committees will be held at the Hilton Inn in Santa Fe on July 17, 1984. (Refer to enclosed agenda.)

Please contact (no later than July 9) Lena Castillo or Liz Jimenez at this office if you would like accommodations. The Hilton Inn will have a block of rooms for this meeting giving rates of $55 single or $65 double.

We are looking forward to seeing you on the 17th of July.

Sincerely,

Ted F. Martinez
Executive Secretary

TFM:LC:lj
Enclosure

AGENDA

NEW MEXICO ARTICULATION COMMITTEE MEETING

July 17, 1984

Hilton Inn, Santa Fe, New Mexico

8:30 a.m. - 9:00 a.m.	Continental Breakfast
9:00 a.m. - 9:15 a.m.	Opening Remarks
9:15 a.m. - 10:15 a.m.	Committee Progress Reports - Allied Health - Agriculture - Business - Computer Science/Mathematics - Engineering/Engineering Technology
10:15 a.m. - 10:30 a.m.	Break
10:30 a.m. - 11:30 a.m.	Panel on Articulation - Faculty Articulation Committee Maricopa Community College (District Representative) Denver Community College (District Representative) - Existing Articulation Agreement & Contractual Agreements (Colorado State University Representative) - Issues Concerning Transfer Process (California Postsecondary Education Commission Representative)
11:30 a.m. - 1:00 p.m.	Lunch
1:00 p.m. - 2:00 p.m.	Meeting of New Mexico Articulation Committees
2:30 p.m. - 3:00 p.m.	Report from Articulation Committees to Group as a Whole
3:00 p.m.	Adjournment

UNM COMPUTER INFORMATION SERVICES

RECEIVED
JUL 9 1985
BOARD OF EDUCATIONAL FINANCE

DATE: 5 July 1985
TO: Lena Castillo
FROM: Scott C. Schermer

SUBJECT: Progress to date on the WICHE Articulation Project

Personnel:

The following people have participated in the WICHE Project:

Sigfredo Maestas, (to 12/84) BEF Santa Fe, who had initial charge of the project.

Lena Castillo, BEF Santa Fe, who has current charge of the project, and has served as primary liaison with WICHE and the various New Mexico articulation comittees.

Paddy Johnson, BEF Support Team Leader, UNM CSIS, has exercised primary immediate supervision of the project.

Scott Schermer, Student Programmer, BEF Support Team, UNM CSIS, primary responsibility has been to attempt operationalization UC Irvine CART system, Collect New Mexico articulation data, and attempt to develop design for a system which might be better suited to New Mexico's situation.

Types of Equipment Used:

Two types of computers have been used thus far in the project: IBM Pcs and Pc compatibles (Zenith Model 100); and an Apple Macintosh. The IBM machines used were the IBM PC (256k configuration with 10mb hard disk and math coprocessor), and a Zenith Model 100 similarly configured. The possibility of using Apple II or Apple Macintosh machines for purposes of program development was explored (see attached memo 24 October 1984). However, the Apple IIs were believed to be too limited, and suitable database software was not available for the Macintosh at the time of our examination. Therefore, we have returned to the idea of using the IBM PC compatible equipment, and will probably continue to suggest that they be used in conjunction with a mainframe based system.

Project to Date:

Intial attempts to operationalize the U.C. Irvine CART software on the basis of disks and documentation provided through WICHE were made in September-October, 1984. This involved "canabalizing" two IBM PCs to obtain one machine which met the minimum configuration required for the Revelation Data Base package on which U.C. Irvine CART system is based. An attempt was made to enter dummy data sets for two schools and one articulation area to test the program operation. The documentation provided through WICHE was found to be inadequate

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to allow successful implementation (see memo 2 October 1984 attached).

After considering the difficulties of obtaining properly configured equipment, and the projected costs of implementation, Sigfredo Maestas and Lena Castillo indicated that they felt the current CART package to be unsuited to New Mexico, and would prefer to explore alternative approaches. The problems which were felt to exist included:

1) Overall Documentation, at the time of the evaluation, this was entirely inadequate. Although documentation has since been improved, (see U.C. Irvine ASSIST documentation attached) it still appears deficient in terms of student user needs.

2)Equipment costs, this is the principal point of disagreement. It was felt that the schools were going to be offered a $900 software bonus on the condition that they purchase approximately $12000 worth of microcomputer equipment dedicated to replacing printed catalogs. This cost was felt to be out of reach for all but the largest of the state institutions, and the quoted cost projections did not consisder data entry or database maintainence (see memo 24 October 1985).

As a result, an exploration of alternatives was begun. Initially an informal survey of New Mexico institutions was made to determine which microcomputers were most common. The results indicated that Apple IIs were most common, followed by IBM PCs. The latter machines were also found to be increasing in frequency. Among the alternatives which we examined were:

1)Implementing a stripped-down course transferability program on the Apples or PCs written in BASIC or similar language. The advantage to this was seen to lie in reduced system complexity, and possibly ease of maintainence. The disadvantages related to the reduced capability of the program to handle degree program comparisons.

2) Implementation of a system of intermediate complexity on the Apple Macintosh based on a relational database program implemented for that machine. This was found to be impractical, at the time,due to memory limitations and lack of suitable software (sveral were under development, but none had been released).

3) Implementation of a similar system utilizing PC SAS (see memo 22 March 1985). There are several advantages to this approach. PC SAS and standard SAS are totally compatible,therefore the system can be coded on the mainframeand transferred to a PC environment, or made available through terminal access. Maintainence of the course files on a centrally located mianframe, would

simplify overall system maintainence. PC SAS can be run on an IBM PC-AT with a 10mb hard disk, thus the equipment costs are potentially much lower. In short, the schools would be making a smaller investment to obtain a system that would be more than a dedicated electronic course catalog.
The articulation system will be menu-driven. The necessary menus, data input nd output display screens will be implemented using SAS/AF. This product allows custom screens to designed and linked to other screens, menus and programs as needed. The system will allow entry of student transcript data (with floppy disk storage) and editing of a previously entered transcript. The system then requests specification of student and target institutions, and proceeds to check for course transferability on the basis of grade and year of completion. Next, the system will determine the current parent institution course equivalents, and determine which courses are generally transferable, and which are specifically transferable for a given articulation. At this point no provision has been made for a degree-specific evaluation.

PROBLEMS:

1) The hardware requirements and costs attendant to the the U.C. Irvine system (see attached UCI/ASSIST prospectus pp 13-14) do not appear to be congruent with the size of New Mexico's post-secondary education system. Headcount enrollment in the system is approximately 60,000 and FTE is probably on the order of 30,000.

2) Resistance to the idea of articulation has been expressed in moderate to strong terms by two of the colleges at UNM. These are in the areas of Allied Health and Business (see attached letters). These schools apparently do not believe that other institutuions are meeting UNM's standards, or they fear loss of control over the transfer process. At any rate, this resistance brings the validity of the current articulation process into serious question. Dissatisfaction with aspects of the Business articulation has also been expressed by ENMU-Clovis and NNMCC (see attached letters).

3) The question of the utility of a computer based system as a means of easing access to transfer information for students must be raised. Ideally some uniform system of course transferability information nedds to be put in place which binds all the state schools. This is especially true of a computer based system, which in theory will make access to information for all of New Mexico's schools rapidly accessible. Resistance of the type being expressed by UNM will invalidate such a system. In addition, these systems are being perceived as a replacement for catalogs, on the assumption that students are finding the catalog information too ambiguous, or inconsistently applied to transfer cases by target institutions. I do not

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believe that a computer based system will improve this situation without the full cooperation of the schools, a condition which may have to be imposed legislatively.

4) The general cost of an interactive computer articulation system is goiung to be greater than various non-computer alternatives. General articulation tables, in a readily useable form. are already available in a word processor prepared document (for all but the WICHE specified areas). The cost of preparation and maintainence, in this case, is probably less than $50 a copy (or "installation"). While this may not be as impressive as an interactive computer system, it is practical and largely in place.

5) There are indications that portions of New Mexico's flagship university (UNM) have little or no interest in articulation agreements, and this attitude is bound to hamper any system which is proposed. This problem will have to be addressed to ensure the success of the articultation system.

MARICOPA COMMUNITY COLLEGES

MEMORANDUM

DATE: April 27, 1984

TO: Alfredo G. de los Santos Jr.

FROM: Irene Wright, Articulation Specialist

RE: THREE LETTER COURSE PREFIX
STATUS REPORT NO. 2 (4/16/84)

Enclosed is a copy of Status Report No. 2 (4/16/84) of the Chart for Conversion from Two- to Three-letter Course Prefixes, along with a third request to the Instructional Councils.

You will note that they have been requested to review the Arizona State University (ASU) course prefixes. When ASU does not have like course prefixes, they have been requested to review course prefixes used by other Arizona public post-secondary institutions.

I'll prepare another status report in June or July.

cc: Academic Program Articulation Steering Committee
Community College Chief Academic Officers
Instructional Council Chairs
Kris McClusky
Cherie McGlynn
James Hilbank
Jess De Vaney
David Butler
John Porter
Mark Von Destinon

MARICOPA COMMUNITY COLLEGES

M E M O R A N D U M

DATE: April 27, 1984

TO: Instructional Council Chairs

FROM: Irene Wright, Articulation Specialist

RE: THREE-LETTER COURSE PREFIX:
STATUS REPORT NO. (4/16/84)

Status Report No. 2 (4/16/84) of the Chart for Conversion from Two- to Three- letter Course Prefix has been completed. Enclosed are the sections including course prefixes (disciplines) which are under the jurisdiction of your Instructional Council.

In addition, information concerning course prefixes used by other Arizona public post-secondary institions is enclosed. Please pay particular attention to the information for Arizona State University (ASU).

If you have already made recommendations on behalf of your council, please review the proposed prefix and prefix definition shown on Status Report No. 2 for the prefixes for which your council is responsible. If the comment section of the status report includes a comment to check course numbers and an appendix is not attached, we need to work together to prepare an appendix to resolve course number conflicts.

If you have not yet made recommendations on behalf of your council, you should do so. This is the third request.

If ASU does not offer like prefixes, you should review course prefixes used by other Arizona institutions. Perhaps we could align with them. You will note that Maricopa has already aligned with Pima and Northern Arizona University (NAU) in some cases.

Changes or corrections to proposed prefixes and prefix definitions should be marked in red and returned to me by May 11, 1984.

Please feel free to call if you have questions.

Thanks.

cc: Alfredo G. de los Santos Jr.
Ron Eastin

CHART FOR CONVERSION
FROM TWO- TO THREE-LETTER
COURSE PREFIXES

Status Report No. 2

April 16, 1984

The Maricopa Community Colleges

AMT 48

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THE MARICOPA COMMUNITY COLLEGES

CHART FOR CONVERSION FROM TWO- TO THREE-LETTER COURSE PREFIXES

COURSE TYPE	CURRENT PREFIX DEFINITION	CURRENT PREFIX	PROPOSED PREFIX(3)	PROPOSED PREFIX DEFINITION(20)	CURRENT ASU PREFIX	CURRENT ASU PREFIX DEFINITION	EXISTING ASU EQUIVALENCIES*	COMMENTS
A	Assessment & Advisement	AA	AAA	Assessment & Advisement				
A	Arabic	AB	ARB	Arabic				
A/O	Accounting	AC	ACC	Accounting	ACC	Accounting	ACC	See Accounting Appendix
O	Advertising Arts	AD	ADA	Advertising Arts			Portfolio Evaluation/Art**	
O	Aeronautics	AE					AET	
A	Air Force ROTC	AF	AES	Aerospace Studies	AES	Aerospace Studies	AES	
O	Agriculture	AG	AGB AGL AGM AGS ANS	Agribusiness Agricultural Landscape Agricultural Machinery Agricultural Science Animal Science	AGB ERA	Agribusiness Environmental Resources in Agriculture	AGB/ERA	See Agriculture Appendix
A	Art Humanities	AH	ARH	Art (History or Humanities)	ART	Art History	ARH	

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THE MARICOPA COMMUNITY COLLEGES

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O	Admin. of Justice	AJ			CRJ	Justice Studies	CRJ	
A	Anthropology	AN	ASB ASM	Anthropology (Soc/Beh) Anthropology (Sci/Matn)	ASB ASM	Anthropology (Soc/Beh) Anthropology (Sci/Math)	ASB/ASM	See Anthropology Appendix
A/O	Art	AR	ART		ARE ARH ART	Art Education Art History Art	ART	Check Course # (AR, PO)
O	Automotive	AU	AUT	Automotive Technology			IVE	
O	Building Safety & Construction Technology	BG			CON	Construction	IVE	
A/O	Biology	BI	BIO	Biology	BIO BOT MIC ZOL	Biology Botany Microbiology Zoology	BIO/BOT/ZOL	
O	Stone Masonry	BL	BKL	Bricklaying				Coordinated w/Pima
O	Business-Personal Computer	BP	BPC	Business-Personal Computers				

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THE MARICOPA COMMUNITY COLLEGES

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O	Biomedical Clinical Tech	BT	BMT	Biomedical Clinical Tech				
O	Carpentry	CA	CRP	Carpentry				Coordinated w/Pima
O	Printed Circuit Board Tech	CB	PCB	Print Circuit Board Tech				
O	Chemical Dependency	CD	CHD	Chemical Dependency				
A/O	Chemistry	CH	CHM	Chemistry	CHM	Chemistry	CHM/MIC	
O	Clinical Lab Tech	CL	CLS	Clinical Lab Sciences			MIC**	
O	Contract Management	CM	MGT	Management				Check Course # (CM, MG, MM, TM)
A	Chinese	CN	CHI	Chinese	CHI	Chinese	CHI	

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THE MARICOPA COMMUNITY COLLEGES

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A	Counseling	CO	CPD	Counseling & Personal Development				
O	Counseling Paraprofessional	CP	BHS	Behavioral Health Services Tech				
O	Court Reporting	CR	CTR	Court Reporting				
A	Computer Science	CS	CSC	Computer Science	CSC	Computer Science		
O	Civil Technology	CT					CEE/REA	
O	Communications Workers	CW	TCW	Telecommunications Workers				
O	Dental Assisting	DA	DAE	Dental Assisting Education				Coordinated w/Pima & NAU
O	Data Entry	DE	CTP	Computer Transaction Processing				

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THE MARICOPA COMMUNITY COLLEGES

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O	Dental Hygiene	DH	DHE	Dental Hygiene Education				
O	Data Processing	DP	CIS	Computer Information Systems	CIS	Computer Information Systems	CIS/CSC	
					CSC	Computer Science		
O	Drafting	DT					GRC/IVE	
O	Electrician Apprenticeship	EA	ELT	Electrician				Coordinated w/Pima Check Course #
A	Economics	EC	ECN	Economics	ECN		ECN	
A/O	Education	ED						
A/O	English Humanities	EH					ENG	
O	Electronics	EL	ELT	Electronic Technology	CET	Computer Engineering Technology	CET/ELT/MAT/MET/UET	Check Course #
					ELT	Electronic Technology		(EA/EL)
					MAT	Mathematics		
					MET	Manufacturing Technology		
					UET	Microelectronics Engineering Technology		

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THE MARICOPA COMMUNITY COLLEGES

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O	Emergency Medical Tech	EM	EMT	Emergency Medical Technology				
A/O	English	EN			ENG	English	ENG	
O	Equine Science	EQ						
A/O	Engineering Science	ES	ECE	Engineering Core	ECE	Engineering Core	ECE	
O	Electricity	EY	ELC	Electricity			ELT	
O	Food Service	FD	FON	Food & Nutrition	FON	Food & Nutrition	FON	
A	French	FR	FRE	French			FRE	
O	Fire Science	FS						
A/O	Future Studies	FT	FUS	Future Studies				
A/O	General Business	GB	GBS	General Business	ADS INS QBA	Administrative Services Insurance Quantitative Business, Analysis	ADS/INS/QBA	
A	Geography	GE	GCU GPH	Geography Physical Geography	GCU GPH	Geography Physical Geography	GCU/GPH	See Geography Appendix

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THE MARICOPA COMMUNITY COLLEGES

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A	Greek	GK	GRK	Greek				
A	Geology	GL			GLG	Geology		
A	German	GR	GER	German			GER	
O	General Technology	GT						
O	Glazing	GZ	GLZ	Glazing				Coordinated w/Pima
A	Hebrew	HB	HBR	Hebrew				
O	Hospital Central Service	HC	HCS	Hospital Central Service				
O	Diesel/Heavy Equipment Tech	HD	DHE	Diesel/Heavy Equipment Technology				
A/O	Home Economics	HE	CFS	Child/Family Studies				See Home Economics Appendix
			FON	Food and Nutrition	FON	Food & Nutrition		
			HEC	Management, Consumerism and General	HEC	Home Economics		
			INT	Interior Design				
			TEC	Textiles and Clothing	TXC	Textiles & Clothing		Check Course

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THE MARICOPA COMMUNITY COLLEGES

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History	HI	HIS	History			HIS/REL	
Health	HL	HES	Health Science			HES/PED	
Hospitality	HM	HMM	Hospitality/Hotel/ Hotel Management				
Health Related	HR	HLR	Health Related/Health Care Science				
Humanities	HU	HUM	Humanities			HUM/THE**	
International Business	IB	INB	International Business				
Interior Design	ID	INT	Interior Design			DEH	Check Course #(HE/ID)
Industry	IN	IND	Industry (In Process)				
Italian	IT	ITA	Italian	ITA	Italian	ITA	

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THE MARICOPA COMMUNITY COLLEGES

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O	Ironworking	IW	IRW	Ironworking				Coordinated w/Pima
A/O	Journalism	JL					MCO**/JRN**	
A	Japanese	JP	JPN	Japanese	JPN	Japanese	JPN	
O	Legal Assistant	LA	LAS	Legal Assistant				
O	Library	LB	LBS	Library Skills				
O	Life Insurance/Financial Consulting	LI	LIN	Life Insurance/ Financial Consulting				
A	Lifelong Learning	LL	LLL	Lifelong Learning				
A	Latin	LN	LAT	Latin	LAT	Latin	LAT	
O	Labor Studies	LS	LST	Labor Studies				
O	Library Tech	LT	LBT	Library Technician				

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THE MARICOPA COMMUNITY COLLEGES

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A/O	Mathematics	MA	MAT	Mathematics	MAT STP	Mathematics Statistics & Probability	CSC/ECE/MAT	See Mathematics Appendix
O	Mass Communications	MC						
O	Management	MG	MGT	Management	MGT	Management		Check Course # (CM, MG, MM, TM)
O	Mental Health/Human Services	MH	MHS	Mental Health/Human Services				
O	Marketing	MK	MKT	Marketing	MKT	Marketing		Check Course # (MK, PR)
		ML	MWR	Millwright (In Process)				
O	Manufacturing Management	MM	MGT	Management				Check Course # (CM, MG, MM, TM)
O	Machinist	MN	MCN	Machinist				
A	Music Performance	MP			MUE MUP MUS	Music Education Music Performance Music	MUE/MUP/MUS	

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THE MARICOPA COMMUNITY COLLEGES

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O	Medical Records	MR	MDR	Medical Records				
A	Military Science	MS	MIS	Military Science	MIS	Military Science	MIS	
O	Machine Technology	MT						
A/O	Music	MU			MHL MTC MUE MUS	Music History/Literature Music Theory/Composition Music Education Music	MHL/MTC/MUP/MUS	
O	Millwork-Cabinet	MW	MWK	Millwork				
A/O	Nontraditional Communication	NC	NCM	Nontraditional Communication				
O	Nursing Science/Basic	NS	NUR	Nursing Science/Basic	NUR	Nursing		
O	Nursing/Continuing Education	NU	NCE	Nursing: Continuing Education	NCE	Nursing: Continuing Education		

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O	Operating Engineers	OA	OEG	Operating Engineers				Coordinated w/Pima
O	Office Education	OE	OED	Office Education				
O	Public Administration	PA	PAD	Public Administration			POS**	
O	Plastering-Cement	PC	PCM	Plastering-Cementing				Coordinated w/Pima
			PMM	Plant Mechanics (In process)				
O	Paint-Decorating	PD	PNT	Painting-Decorating				Coordinated w/Pima
A/O	Physical Education	PE	PED	Physical Education	DAN PED	Dance School Physical Education	DAN/PED	
O	Plumbing Pipefitting	PF	PFT	Plumbing-Pipefitting				Coordinated w/Pima

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THE MARICOPA COMMUNITY COLLEGES

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O	Professional Growth	PG	PGR	Professional Growth				
A/O	Physics	PH	PHY	Physics	PHY	Physics	PHY	
A	Philosophy	PI	PHI	Philosophy	PHI	Philosophy	PHI	
A	Physical Science	PL	PHS	Physical Science	AST PSE	Astronomy Science Education	AST**/PSE**	See Physical Science Appendix
O	Parks Management	PM						
		PN	PNM	Plant Mechanics (In Process)				
A/O	Photography	PO	ART	Art	ART	Art	ART	Check Course # (AR, PO)

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THE MARICOPA COMMUNITY COLLEGES

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O	Public Relations	PR	MKT	Marketing	MKT	Marketing		Check Course # (MK, PR)
A	Political Science	PS	POS	Political Science	POS	Political Science	POS	
A	Portuguese	PT	POR	Portuguese	POR	Portuguese	POR	
A/O	Psychology	PY	PSY	Psychology (Sci & Math)	PHY	Psychology (Soc & Behv)	PGS/PSY	
					PGS	Psychology (Sci & Math)		
O	Quality Control Tech	QC						
A	Recreation	RC	REC	Recreation	REC	Recreation		
A/O	Reading	RE	RDG	Reading Education	RDG	Reading		

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THE MARICOPA COLLEGES

CHART FOR CONVERSION FROM TWO- TO THREE-LETTER COURSE PREFIXES

COURSE TYPE	CURRENT PREFIX DEFINITION	CURRENT PREFIX	PROPOSED PREFIX(3)	PROPOSED PREFIX DEFINITION(20)	CURRENT ASU PREFIX	CURRENT ASU PREFIX DEFINITION	EXISTING ASU EQUIVALENCIES*	COMMENTS
O	Air Conditioning/ Refrigeration	RF	HVA	Heating, Ventilation and Air Conditioning				
O	Real Estate	RL	REA	Real Estate	REA	Real Estate	REA	
O	Records Management	RM	RMG	Records Management				
A	Religious Studies	RN	REL	Religious Studies	REL	Religious Studies	REL	
O	Robotics	RO	RBT	Robotics Technology				
O	Respiratory Care	RS	RES	Respiratory Care/Therapy				
O	Medical Radiography	RT	MRT	Medical Radiography/ Radiologic Tech				
A	Russian	RU	RUS	Russian	RUS	Russian	RUS	
O	Sign Painting	SA	SNP	Sign Painting				
O	Health Unit Coordinator/ Management (Unit Clerk)	SC	HUC	Health Unit Coordinator/Management				

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THE MARICOPA COLLEGES

CHART FOR CONVERSION FROM TWO- TO THREE-LETTER COURSE PREFIXES

COURSE TYPE	CURRENT PREFIX DEFINITION	CURRENT PREFIX	PROPOSED PREFIX(3)	PROPOSED PREFIX DEFINITION(20)	CURRENT ASU PREFIX	CURRENT ASU PREFIX DEFINITION	EXISTING ASU EQUIVALENCIES*	COMMENTS
A/O	Speech Communication	SE	COM MCO TCM THE	Communication Mass Communications Telecommunications Theatre	COM MCO TCM THE THP	Communication Mass Communications Telecommunications Theatre Theatre Performance/ Production	COM/MCO	See Speech Appendix; Check Course # (SE, TH)
A	Spanish Humanities	SH	SPH	Spanish Humanities				
A	English as a 2nd Language	SL						
O	Sheet Metal	SM	SML	Sheet Metal				Coordinated w/Pima
A/O	Sociology	SO					SOC	
A	Spanish	SP	SPA	Spanish			SPA	
O	Solar Energy Technology	ST	SET	Solar Energy Technology				
O	Social Work	SW			SWU	Social Work (Undergraduate Program)	SWU	

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THE MARICOPA COLLEGES

CHART FOR CONVERSION FROM TWO- TO THREE-LETTER COURSE PREFIXES

COURSE TYPE	CURRENT PREFIX DEFINITION	CURRENT PREFIX	PROPOSED PREFIX(3)	PROPOSED PREFIX DEFINITION(20)	CURRENT ASU PREFIX	CURRENT ASU PREFIX DEFINITION	EXISTING ASU EQUIVALENCIES*	COMMENTS
O	Travel Agent Tech	TA	TVL	Travel Agent Technology				
A/O	Theatre Arts	TH	TCM THE	Telecommunications Theatre	TCM THE THP	Telecommunications Theatre Theatre Performance/ Production	THE/THP	See Theatre Appendix; Check Course # (SE, TH)
O	Tribal Management	TM	MGT	Management				
O	Trade Related	TR	TDR	Trade Related (In process)				
O	Industrial TV	TV						
A	Voluntary Job Experience	VE	VSE	Volunteer Job Experience				
O	Water/Wastewater Management	WM	WWM	Water/Wastewater Mgt.				Coordinated w/Pima

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THE MARICOPA COLLEGES

CHART FOR CONVERSION FROM TWO- TO THREE-LETTER COURSE PREFIXES

COURSE TYPE	CURRENT PREFIX DEFINITION	CURRENT PREFIX	PROPOSED PREFIX(3)	PROPOSED PREFIX DEFINITION(20)*	CURRENT ASU PREFIX	CURRENT ASU PREFIX DEFINITION	EXISTING ASU EQUIVALENCIES*	COMMENTS
O	Work Orientation	WO	WKO	Work Orientation				
O	Word Processing	WP	WIP	Word/Information Processing				
O	Welding Tech	WT						

* Source - 12/8/83 Course Equivalency Guide printout
** Minimum number of equivalencies
A = Academic
O = Occupational

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ACCOUNTING APPENDIX

MARICOPA COUNTY
COMMUNITY COLLEGES

DATE: December 7, 1984

TO: Irene Wright

FROM: Dave Bydalek
Business Instructional Council Chair

SUBJECT: AC 211 and AC 212 Additional Information

Although the course titles and descriptions for the above proposed courses are not identical to those at ASU, the subject matter specialists at ASU and similar institutions around the nation will immediately identify the proposed MCCCD titles and descriptions as appropriate for the content of the courses. Further, the wording of the proposed titles and descriptions will facilitate advisement of students within the MCCCD, especially in the year(s) of transition.

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AGRICULTURE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
AG 101	AGS 101	Exploring Careers in AG
AG 110	ANS 110	Introduction to An. Science
AG 112	ANS 112	An. Science Practices
AG 115	ANS 115	Livestock Select. & Eval.
AG 117	ANS 117	Pleasure Horse Management
AG 130	AGB 130	Economics of Am. Agri.
AG 132	AGB 132	Ag. Accounting & Business Analysis
AG 141	AGM 141	Agricultural Welding
AG 143	AGM 143	Small Gas Engines

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AGRICULTURE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
AG 145	AGM 145	Farm Machinery
AG 161	AGS 161	Origin & Comp. Soils
AG 163	AGS 163	Growth & Dev. of Plants
AG 165	AGS 165	Crop Science
AG 180	AGS 180	Pr. of Horticulture
AG 181	AGL 181	Landscape Const. Tech.
AG 182	AGS 182	Gardening Pr. & Tech.
AG 183	AGS 183	Orn. Plant I.D. & Use
AG 184	AGL 184	Ls. Drafting & Design I
AG 185	AGL 185	Landscape Management

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AGRICULTURE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
AG 186	AGS 186	Greenhouse Mgt. & Const.
AG 187	AGS 187	Indoor Foliage Plants
AG 199	AGB 199	Special Projects
AG 200	AGB 200	Cooperative Education
AG 212	ANS 212	Livestock Prod. and Mgt.
AG 213	ANS 213	Animal Feeding
AG 223	ANS 223	Animal Disease
AG 231	AGB 231	Marketing of Agr. Products.

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AGRICULTURE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
AG 235	AGB 235	Agricultural Finance
AG 261	AGS 261	Fertilizers
AG 264	AGS 264	Irrigation & Water Mgt.
AG 265	AGS 265	Env. Inter-Rel. of Pest Control
AG 280	AGS 280	Ornamental Horticulture
AG 283	AGL 283	Ls. Drafting & Design II
AG 284	AGS 284	Lawn and Turf Care
AG 285	AGS 285	Prop. of Horticulture Plants

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ANTHROPOLOGY APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
AN 100	ASB 100	Introduction to Anthropology
AN 101	ASM 101	Human Origins and the Development of Culture
AN 102	ASB 102	Cultural & Social Anthropology
AN 103	ASB 103	Indians of Early Arizona
AN 110	ASB 110	Introduction to Archaeology
AN 245	ASB 245	Indians of the Southwest

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GEOGRAPHY APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
GE 105	GPH 111	Introduction to Physical Geography
GE 106	GPH 112	Physical Geography
GE 107	GPH 113	Physical Geography Lab
GE 112	GCU 121	World Geography I
GE 113	GCU 122	World Geography II
GE 120	GPH 120	Arizona Water Issues
GE 152	GCU 141	Introduction to Economic Geography

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GEOGRAPHY APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
GE 210	GPH 210	Physical Environment
GE 210 HH	GPH 210	Honors: Physical Environment
GE 211	GPH 211	Introduction to Landforms
GE 221	GCU 221	Arizona Geography
GE 253	GCU 253	Introduction to Cultural & Historical Geog.
GE 271	GPH 271	Maps and Map Reading
GE 281	GPH 212	Introduction to Meteorology

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 101 AH	CFS 101 AH	Art Activities for the Young Child
HE 101 AJ	CFS 101 AJ	Music Activities for the Young Child
HE 101 AL	CFS 101 AL	Language Activities/Young Child
HE 101 AN	CFS 101 AN	Spatial Movements for Young Child
HE 101 AP	CFS 101 AP	Science Activities/Young Child
HE 101 AR	CFS 101 AR	Learning with Toys
HE 105	TEC 105	Clothing Selection
HE 106	TEC 106	History of Fashion
HE 109	TEC 109	Introduction to Fashion (MK 109)
HE 111	INT 111	Hist of Archit and Furniture
HE 112 AB	TEC 112 AB	Altering Ready-mades

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 112 AD	TEC 112 AD	Construction of Men's Clothing
HE 112 AF	TEC 112 AF	Decorative Textiles I
HE 112 AH	TEC 112 AH	Decorative Textiles II
HE 112 AQ	TEC 112 AQ	Pattern Alteration & Fit
HE 112 AS	TEC 112 AS	Sewing for Children
HE 112 AU	TEC 112 AU	Sewing Clothing Accessories
HE 119	TEC 119	Basic Sewing Skills
HE 121	TEC 121	Creative Machine Use

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
	INT 200 WA	Cooperative Education
	INT 200 WB	Cooperative Education
	INT 200 WC	Cooperative Education
	INT 200 WD	Cooperative Education
	TEC 200 WA	Cooperative Education
	TEC 200 WB	Cooperative Education
	TEC 200 WC	Cooperative Education
	TEC 200 WD	Cooperative Education
HE 201	CFS 201	Participation Child Care & Nursery I
HE 202	CFS 202	Participation Cnild Care & Nursery II
HE 212	CFS 212	Creative Act for Young Child (ED 212)
HE 222	TEC 222	Textiles

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 223	TEC 223	Tailoring
HE 225	TEC 225	Pattern Design
HE 243	FON 243	Meal Management
HE 248	HEC 248	Consumer Econ & Problems
HE 250 AC	HEC 250 AC	Consumer and the Law
HE 250 AG	HEC 250 AG	Consumer/Health Care Dollar
HE 250 AK	HEC 250 AK	Consumer/Housing
HE 250 N	HEC 250 AN	Consumerism
HE 250 O	[illegible]	[illegible]

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 122	TEC 122	Sewing with Knits
HE 123	TEC 123	Clothing Construction
HE 124	TEC 124	Advanced Clothing Construction
HE 126	TEC 126	Sewing for the Home
HE 128	TEC 128	Home Upholstery
HE 132	HEC 132	Pers & Fam Financial Secur (GB 132)
HE 134	TEC 134	Fashion Illustration
HE 139	FON 139	Basic Cooking Skills
HE 140 AI	FON 140 AI	High Nutrition/Low Cost
HE 140 AK	FON 140 AK	Low-Calorie Gourmet Foods
HE 140 AP	FON 140 AP	Microwave Cooking I

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 140 AR	FON 140 ~~AR~~ AR	Microwave Cooking II
HE 140 AS	FON 140 AS	Nutrition for Senior Adults
HE 140 AW	FON 140 AW	Nutrition/Young Child
HE 140 AZ	FON 140 AZ	Nutrition Review
HE 140 BA	FON 140 BA	Small Appliance Cookery
HE 140 BC	FON 140 BC	Special Diets
HE 140 BD	FON 140 BD	Weight Control
HE 141	FON 141	Nutrition

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 183	INT 183	Designing Home Interiors
HE 198 AA	HEC 198 AA	Projects in Community Service
HE 198 AB	HEC 198 AB	Projects in Community Service
HE 198 AC	HEC 198 AC	Projects in Community Service
HE 199 AA	CFS 199 AA	Special Projects
HE 199 AB	CFS 199 AB	Special Projects
HE 199 AC	CFS 199 AC	Special Projects
	FON 199 AA	Special Projects
	FON 199 AB	Special Projects
	FON 199 AC	Special Projects

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 183	INT 183	Designing Home Interiors
HE 198 AA	HEC 198 AA	Projects in Community Service
HE 198 AB	HEC 198 AB	Projects in Community Service
HE 198 AC	HEC 198 AC	Projects in Community Service
HE 199 AA	CFS 199 AA	Special Projects
HE 199 AB	CFS 199 AB	Special Projects
HE 199 AC	CFS 199 AC	Special Projects
	FON 199 AA	Special Projects
	FON 199 AB	Special Projects
	FON 199 AC	Special Projects

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 200 WA	CFS 200 WA	Cooperative Education
HE 200 WB	CFS 200 WB	Cooperative Education
HE 200 WC	CFS 200 WC	Cooperative Education
HE 200 WD	CFS 200 WD	Cooperative Education
	FON 200 WA	Cooperative Education
	FON 200 WB	Cooperative Education
	FON 200 WC	Cooperative Education
	FON 200 WD	Cooperative Education
	HEC 200 WA	Cooperative Education
	HEC 200 WB	Cooperative Education
	HEC 200 WC	Cooperative Education
	HEC 200 WD	Cooperative Education

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 200 WA	CFS 200 WA	Cooperative Education
HE 200 WB	CFS 200 WB	Cooperative Education
HE 200 WC	CFS 200 WC	Cooperative Education
HE 200 WD	CFS 200 WD	Cooperative Education
	FON 200 WA	Cooperative Education
	FON 200 WB	Cooperative Education
	FON 200 WC	Cooperative Education
	FON 200 WD	Cooperative Education
	HEC 200 WA	Cooperative Education
	HEC 200 WB	Cooperative Education
	HEC 200 WC	Cooperative Education
	HEC 200 WD	Cooperative Education

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 250 AS	HEC 250 AS	Consumer Fraud
HE 250 AZ	HEC 250 AZ	Consumer Rights & Responsibilities
HE 256	HEC 256	Management in the Family
HE 266	TEC 266	Fashion Design
HE 269	TEC 269	Fashion Merchandising Seminar (MK 269)
HE 270	TEC 270	Fashion Merc Internship (MK 270)
HE 270 AA	TEC 270 AA	Fashion Merc Internship (MK 270 AA)

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HOME ECONOMICS APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
HE 274	TEC 274	New York Study Tour (MK 274)
HE 278	CFS 278	Early Childhood Education
HE 279	CFS 279	Experiences in Early Childhood Educ.
HE 283	INT 283	Interior Design I
HE 284	INT 284	Interior Design II
HE 285	CFS 285	Family-School Interaction

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MATHEMATICS APPENDIX 1

MARICOPA COUNTY
COMMUNITY COLLEGES

DATE: January 23, 1984

TO: Irene Wright

FROM: Ed Chandler
Math Instructional Council Chair

SUBJECT: Conversion from two- to three-letter course prefixes in the MCCCD

The proposed change from the two-letter prefix of MA to the three-letter prefix MAT is satisfactory to the mathematics instructional council.

Within the recently adopted system for numbering mathematics courses in the MCCCD the numbers reflect the relative degree of difficulty between courses and also the sequence in which students should take the courses. Any attempt to align with Arizona State University would destroy these advantages.

Therefore, the mathematics instructional council does not deem it feasible to totally align our course numbers with those at [illegible]

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MATHEMATICS APPENDIX 2

MARICOPA COUNTY
COMMUNITY COLLEGES

DATE: November 29, 1984

TO: Irene Wright

FROM: Ed Chandler
Math Instructional Council Chair

SUBJECT: Course Number for Linear Algegra

Within the recently adopted system for numbering mathematics courses in the MCCCD the numbers reflect the relative degree of difficulty between courses and also the sequence in which students should take the courses. Linear Algebra is less difficult and can be taken before any calculus course and, therefore, its course number should be smaller than MA 210 (Mathematical Analysis) which is a calculus course. The ASU course number for Linear Algebra is MAT 242 which is inappropriate for our district since 242 is larger than most of our calculus numbers and in fact is the same as our number for Analytic Geometry and Calculus III (third semester calculus).

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SPEECH APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
SE 095	COM 095	Listening & Speaking Skills
SE 100	COM 100	Elements of Speech Communication
SE 101	COM 101	Interpersonal Communication
SE 101 AA	COM 101 AA	Interpersonal Communication - Part I
SE 101 AB	COM 101 AB	Interpersonal Communication - Part II
SE 101 AC	COM 101 AC	Interpersonal Communication - Part III
SE 102	COM 102	Listening Dynamics
SE 104	COM 104	Communication for the Leisure Years
SE 105	COM 105	Relational Communication/Sr Adults

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SPEECH APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
SE 110	COM 110	Non-Verbal Communication
SE 111	COM 111	Parliamentary Procedure
SE 120	MCO 120	Media & Society
SE 135	TCM 135	Informational Telecommunications
SE 199 AA	COM 199 AA	Special Projects
SE 199 AB	COM 199 AB	Special Projects
SE 199 AC	COM 199 AC	Special Projects
	MCO 199 AA	Special Projects
	MCO 199 AB	Special Projects
	MCO 199 AC	Special Projects
	TCM 199 AA	Special Projects
	TCM 199 AB	Special Projects
	TCM 199 AC	Special Projects

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SPEECH APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
SE 200 WA	COM 200 WA	Cooperative Education
SE 200 WB	COM 200 WB	Cooperative Education
SE 200 WC	COM 200 WC	Cooperative Education
SE 200 WD	COM 200 WD	Cooperative Education
	MCO 200 WA	Cooperative Education
	MCO 200 WB	Cooperative Education
	MCO 200 WC	Cooperative Education
	MCO 200 WD	Cooperative Education
	TCM 200 WA	Cooperative Education
	TCM 200 WB	Cooperative Education
	TCM 200 WC	Cooperative Education
	TCM 200 WD	Cooperative Education
SE 203	COM 203	Interviewing
SE 211	COM 211	Public Speaking

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SPEECH APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
SE 213	COM 213	Argumentation & Debate
SE 214	COM 214	Speech Activities
SE 221	COM 221	Voice & Diction (TH 221)
SE 222	COM 222	Interpreters Theatre (TH 222)
SE 223	COM 223	Readers Theatre (TH 223)
SE 230	COM 230	Small Group Communication
SE 234	COM 234	Presentational Speaking
SE 241	COM 241	Oral Interpretation/Literature (TH 241)
SE 280	COM 280	Toastmasters

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 111	THE 111	Introduction to Theatre
TH 112	THE 112	Acting 1
TH 112 AA	THE 112 AA	Acting I
TH 115	THE 115	Theatre Make-up
TH 117	THE 117	Stage Make-up
TH 117 AA	THE 117 AA	Stage Make-up
TH 122	THE 122	Play Study
TH 130	THE 130	Stage Combat

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 131	THE 131	Stage Movement
TH 141	THE 141	Stagecraft I
TH 141 AA	THE 141 AA	Stagecraft I
TH 142	THE 142	Stagecraft II
TH 142 AA	THE 142 AA	Stagecraft II
TH 145	TCM 145	Intro to Motion Picture Production
TH 180	TCM 180	Television Techniques

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 199 AA	THE 199 AA	Special Projects
TH 199 AB	THE 199 AB	Special Projects
TH 199 AC	THE 199 AC	Special Projects
	TCM 199 AA	Special Projects
	TCM 199 AB	Special Projects
	TCM 199 AC	Special Projects
TH 200 WA	THE 200 WA	Cooperative Education
TH 200 WB	THE 200 WB	Cooperative Education
TH 200 WC	THE 200 WC	Cooperative Education
TH 200 WD	THE 200 WD	Cooperative Education
	TCM 200 WA	Cooperative Education
	TCM 200 WB	Cooperative Education
	TCM 200 WC	Cooperative Education
	TCM 200 WD	Cooperative Education

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 201	THE 201	Theatre Production I
TH 202	THE 202	Theatre Production II
TH 202 AA	THE 202 AA	Theatre Production II
TH 205	TCM 205	Intro to Cinema (HU 205)
TH 210	TCM 210	Motion Picture Workshop
TH 211	THE 211	Creative Drama
TH 212	THE 212	Acting II
TH 212 AA	THE 212 AA	Acting II
TH 213	THE 213	Technical Theatre
TH 213 AA	THE 213 AA	Technical Theatre
TH 214	THE 214	Directing: Theatre Techniques

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 215	TCM 215	Photography for Motion Pictures & TV
TH 218	THE 218	Theatre for Children
TH 221	THE 221	Voice & Diction (SE 221)
TH 222	THE 222	Interpreters Theatre (SE 222)
TH 223	THE 223	Readers Theatre (SE 223)
TH 226	THE 226	Costuming I (HE 226)
TH 227	THE 227	Costuming II (HE 227)

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THEATRE APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
TH 241	THE 241	Oral Interpretation/Literature (SE 241)
TH 245	TCM 245	Advanced Motion Picture Production
TH 280	TCM 280	Motion Pict & TV Directing & Editing
TH 281	THE 281	Production & Acting I
TH 281 AA	THE 281 AA	Production & Acting I
TH 282	THE 282	Production & Acting II
TH 282 AA	THE 282 AA	Production & Acting II

AMT 48

PHYSICAL SCIENCE APPENDIX

MARICOPA COUNTY
COMMUNITY COLLEGES

DATE: 7 February 1984

TO: Irene Wright

FROM: Barron Arenson, ES/PH/PL Council Chair

Your January 17 memo finally came to the top of the pile of paper on my desk!

This memo is the requested written response to the conversion of prefixes.

The conversion from ES to ECE and from PH to PHY is logical and no problem.

There will be some difficulty regarding the PL prefix. ASU uses PHS for Physical Science, but has as well PSE for Science Education and AST for Astronomy. I would prefer using PHS for all of our existing PL courses and not inventing new prefixes such as PSE and AST.

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SPEECH APPENDIX

Current Prefix/Number	Proposed Prefix/Number	Course Title
SE 110	COM 110	Non-Verbal Communication
SE 111	COM 111	Parliamentary Procedure
SE 120	MCO 120	Media & Society
SE 135	TCM 135	Informational Telecommunications
SE 199 AA	COM 199 AA	Special Projects
SE 199 AB	COM 199 AB	Special Projects
SE 199 AC	COM 199 AC	Special Projects
	MCO 199 AA	Special Projects
	MCO 199 AB	Special Projects
	MCO 199 AC	Special Projects
	TCM 199 AA	Special Projects
	TCM 199 AB	Special Projects
	TCM 199 AC	Special Projects

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ARIZONA STATE UNIVERSITY
February 29, 1984

COLLEGE/DEPARTMENT	ASU	Description if Other Than Dept
ARCHITECTURE		
Pre-professional*	DES	Preprofessional Core
Architecture	AAD	Architecture Admin and Mgt
	ADE	Arch Design & Tech Lab
	ANP	Environ Analysis & Prog
	APH	Arch Philosphies & Hist
	ARP	Special Studies
	ATE	Arch Technology
	AVC	Arch Communications
Planning	EDE	Energy Design Plan/Tech
	ETE	Energy Tech & Planning
	PLA	Landscape Arch
	PUP	Urban/Regional Planning
Design Sciences	DSC	Design Sciences
BUSINESS ADMINISTRATION		
Accounting	ACC	
Administrative Services	ADS	Administrative Services
	BUE	Business Education
	OFA	Office Administration
Economics	ECN	
Finance	FIN	Finance
	INS	Insurance
	REA	Real Estate
Health Services Administration*	HSA	
Management	MGT	
Marketing	ADV	Advertising
	MKT	Marketing
	TRA	Transportation
Quantitative Systems	CIS	Computer Info Systems
	QBA	Quantitative Business Analysis
EDUCATION		
Couselor Education	CED	
Education Administration & Superv	EDA	
Education Psychology	EDP	

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Education Technology & Library Sci	CBE	Computer Based Education
	EDT	Education Technology
	IME	Instructional Media
	LIS	Library Science
Elementay Education	BLE	Bilingual Education
	ECD	Early Childhood Education
	EED	Elementary Education
	IED	Indian Education
	MCE	Multi-Cultural Education
	RDG	Reading Education
Higher & Adult Education	HAE	
Secondary Education	EDF	Education Foundations
	HUE	Humanities Education
	SAE	Safety Education
	SED	Secondary Education
	SPF	Social & Philosophical Foundations
Special Education	SPE	Special Education

ENGINEERING & APPLIED SCIENCES

Agriculture Divison*	AGB	Agribusiness
	ERA	Environ Resources in Agriculture
Computer Science	CSC	
Construction Division*	CON	
Analysis & Systems *	ASE	
Chemical & Biological Engineering	CHE	
Civil Engineering	CEE	
Electrical & Computer Engineering	EEE	
Engineering Core*	ECE	
Industrial/Management Systems Engr	IEE	
Mechanical & Aerospace Engineering	MAE	
Society, Values & Technology*	STE	
Aeronautical Technology	AET	Aeronautics
Electronics & Computer Technology	ELT	Electronic Technology
	EET	Electronic Engineering Technology
	CET	Computer Engineering Technology
	UET	Microelectronics Engineering Technology

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Industrial Technology	GRC	Graphic Communications
	IVE	Industrial Vocational Education
Manufacturing Technology	MET	
FINE ARTS		
School of Art*	ARA	Art Auxiliary
	ARE	Art Education
	ARH	Art History
	ART	Art
Dance School*	DAN	
Music School*	MUS	Music
	MHL	Music History/Literature
	MTC	Music Theory/Composition
	MUE	Music Education
	MUP	Music Performance
Theatre	THE	Theatre
	THP	Theatre Performance/Production
LIBERAL ARTS		
Aerospace Studies	AES	
Anthropology	ASB	Anthropology (Social & Behavorial)
	ASM	Anthropology (Science & Math)
Botany/Microbiology	BIO	Biology
	BOT	Botany
	MIC	Microbiology
Chemistry	CHM	
English	ENG	
Foreign Languages	FLA	Foreign Languages
	CHI	Chinese
	ITA	Italian
	JPN	Japanese
	LAT	Latin
	POR	Portuguese
	RUS	Russian
	SPA	Spanish
Geography	GCU	Geography
	GPU	Physical Geography

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Geology	GLG	
Health & Physical Education	HES	Health Science
	PED	Physical Education
History	HIS	
Home Economics	CDE	Child Dvelopment
	DEH	Decorative Arts
	FAS	Family Studies
	FON	Food & Nutrition
	HEC	Home Economics Core
	HEE	Home Economics
	TXC	Textiles & Clothing
Interdisciplinary Humanities*	HUP	
Liberal Arts*	LIA	
Mathematics	MAT	Mathematics
	STP	Statistics & Probability
Military Science	MIS	
Philosophy	PHI	
Physics	AST	Astronomy
	PHS	Physical Science
	PHY	Physics
	PSE	Science Education
Political Science	POS	
Psychology	PGS	Psychology (Social & Behavorial)
	PSY	Psychology (Science & Math)
Religious Studies	REL	
Speech & Hearing	SHS	
Sociology	SOC	
Womens's Studies*	WST	
Zoology	BIO	Biology
	ENT	Entomology
	ZOL	Zoology
LAW	LAW	

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NURSING	HDE	Human Development
	NCE	Nursing Continuing Education
	NUR	Nursing
PUBLIC PROGRAMS		
Study of Criminal Justice*	CRJ	
Communications	COM	
Jounalism/Telecommunications	MCO	Mass Communications
	JRN	Journalism
	TCM	Telecommunications
Leisure Studies	REC	Recreation
Public Affairs*	PAF	
SOCIAL WORK	SWG	Social Work (Graduate Program)
	SWU	Social Work (Undergraduate Program)

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ARIZONA WESTERN COLLEGE
Course Prefix Definitions

DEPT CODE	DEPARTMENT NAME
AB	AG-BUSINESS
ACC	ACCOUNTING
AG	AGRICULTURE
AJ	ADMINISTRATION OF JUSTICE
ANT	ANTHROPOLOGY
ART	ART
AS	ANIMAL SCIENCE
ST	ASTRONOMY
BA	BUSINESS ADMINISTRATION
BDC	BROADCASTING
BIO	BIOLOGY
CHM	CHEMISTRY
CO	COOPERATIVE EDUCATION
DP	DATA PROCESSING
EC	ECONOMICS
ED	EDUCATION
ENG	ENGLISH
ES	EARTH SCIENCE
FR	FRENCH
FS	FIRE SCIENCE
GEO	GEOGRAPHY
HE	EHOME ECONOMICS
HIS	HISTORY
JRN	JOURNALISM
MM	BUSINESS-MANAGEMENT
MTH	MATHEMATICS
MUS	MUSIC
NUR	NURSING
OA	OFFICE ADMINISTRATION
OCN	OCEANOGRAPHY
PED	PHYSICAL EDUCATION
PHL	PHILOSOPHY
PHY	PHYSICS
POL	POLITICAL SCIENCE
PS	PLANT SCIENCE
PSY	PSYCHOLOGY
RDG	READING
SC	SCIENCE AND SOCIAL SCIENCE
SOC	SOCIOLOGY
SPE	SPEECH
SPN	SPANISH
SS	SOCIAL SCIENCE
TEC	TECHNOLOGY
THE	THEATRE

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EASTERN ARIZONA COLLEGE
Course Prefix Definitions

AG	Agriculture
AN	Anthropology
AR	Art
AT	Automotive Technology
BI	Biological Science
BC	Building Construction
BA	Business Administration
BU	Business (General)
CH	Chemistry
CD	Child Development
CE	Cooperative Education
CO	Counseling
DP	Data Processing
DR	Drafting Technology
ET	Electronic Technology
EG	Engineering
EN	English
FS	Fire Science
FL	Foreign Languages
FO	Forestry
GL	Geology
HP	Health and Pysical Education
HI	History
HO	Home Economics
IA	Industrial Arts
IE	Industrial Electricity
JU	Justice Administration
MS	Machine Shop
MC	Mass Communications
MA	Mathematics
ME	Mechanical Engineering Technology
MM	Middle Management
MU	Music
NU	Nursing
OE	Office Education
PH	Philosophy
PS	Physical Science
PO	Political Science
PY	Psychology
SO	Sociology
SP	Speech and Drama
TE	Technical Education
WT	Welding Technology

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MOHAVE COMMUNITY COLLEGE
Course Prefix Definitions

CODE	APPLIED SCIENCE AND TECHNOLOGY
ADJ	Administration of Justice
AGR	Agriculture
AUT	Automotive
AVI	Aviation
BTR	Building Trades
CDA	Child Development Associate
DSL	Diesel
ELT	Electronic Technology
EGP	Engineering Processes
FSC	Fire Science
HEC	Home Economics
HOS	Hospitality Services
IEL	Industrial Electricity
JWL	Jewelry
MRE	Marine
REF	Refrigeration
SEN	Small Engine
VCE	Vocational Cooperative Education

CODE	BUSINESS
ACC	Accounting
EAM	Elements of Agency Management
CIS	Computer Information Science
GBS	General Business
MGT	Management
MKT	Marketing
OED	Office Education
REA	Real Estate

CODE	ENGLISH AND FOREIGN LANGUAGES
ENG	English
FRE	French
GER	German
ITL	Italian
JRN	Journalism
LTN	Latin
SPN	Spanish

CODE	FINE ARTS
ART	Art
DRA	Dramatic Arts
HUM	Humanities
MUS	Music
PHI	Philosophy

CODE	HEALTH SCIENCE
HES	Health Science

CODE	PHYSICAL EDUCATION AND RECREATION
PER	Physical Education and Recreation

CODE	SCIENCE AND MATHEMATICS
AST	Astronomy
BIO	Biology
CHM	Chemistry
GEO	Geology
MTH	Mathematics
PHY	Physics

CODE	SOCIAL AND BEHAVIORAL SCIENCES
ANT	Anthropology
COU	Counseling
EDU	Education
GHY	Geography
HIS	History
POL	Political Science
PSY	Psychology
SOC	Sociology

CODE	SPECIAL PROJECTS
	All Areas

Index of Course Offerings By College

COLLEGE OF BUSINESS

Dept.	Code	Page No.
ACC:	Accounting	28
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COLLEGE OF ARTS AND SCIENCES

Dept.	Code	Page No.
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AST:	Astronomy	29
BIO:	Biological Sciences	30
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CHM:	Chemistry	31
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FRN:	French	40
GER:	German	40
GLG:	Geology	41
HIS:	History	42
ITA:	Italian	—
LAN:	Modern Languages	46
MAT:	Mathematics	47
MBI:	Microbiology	51
MS:	Military Science	51
NAV:	Navajo	53
PHL:	Philosophy	53
PHS:	Physical Science	54
PHY:	Physics	54
SCI:	Science	57
SPA:	Spanish	57

COLLEGE OF CREATIVE ARTS

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HUM:	Humanities	44
JLS:	Journalism	45
MUP:	Music Performance	51
MUS:	Music	52
REL:	Religious Studies	56
SC:	Speech Communication	56
TCU:	Telecommunications	58
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COLLEGE OF EDUCATION

Dept.	Code	Page No.
BME:	Bilingual Multi-Cultural Education	31
CC:	Community College Education	31
EAD:	Administration, Supervision Foundation	34

COLLEGE OF EDUCATION (*Continued*)

Dept.	Code	Page No.
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EFD:	Educational Foundations	36
EPS:	Educational Psychology	[illegible]
ESE:	Special Education	39
HPR:	Health, Physical Education & Recreation	43
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SCHOOL OF FORESTRY

Dept.	Code	Page No.
FOR	Forestry	40

SCHOOL OF APPLIED SCIENCE

Dept.	Code	Page No.
FSA:	Food Service Administration	40
HE:	Home Economics	42
ID:	Interior Design	45
IE:	Industrial Education	45
OA:	Office Administration	53
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COLLEGE OF ENGINEERING & TECHNOLOGY

Dept.	Code	Page No.
AS:	Aerospace Studies (AFROTC)	29
CSC:	Computer Science	33
EGR:	Engineering	36
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COLLEGE OF SOCIAL & BEHAVIORAL SCIENCES

Dept.	Code	Page No.
ANT:	Anthropology	28
COR:	Corrections	33
GGR:	Geography	40
GRT:	Gerontology	42
HON:	Honors	43
LA:	Legal Assistant	46
LE:	Law Enforcement	46
PA:	Public Administration	53
PL:	Planning	54
PS:	Political Science	54
PSY:	Psychology	55
SOC:	Sociology	57
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SWS:	Southwest Studies	—
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COLLEGE OF HEALTH PROFESSIONS

Dept.	Code	Page No.
DH:	Dental Hygiene	34
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NUR:	Nursing	53
PT:	Physical Therapy	55
RAD:	Medical Radiography	56
SPH:	Speech Pathology & Audiology	58

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NORTHLAND PIONEER COLLEGE

Department	Prefix
Administration of Crininal Justice	ACJ
Agriculture	AGR
Anthropology	ANT
Art	ART
Automotive	AUT
Biology	BIO
Building Trades	BOC
Business/Real Estate/Accounting	BUS
Chemistry	CHM
Cosmotology	COS
Computer Science	CSC
Drafting	DRF
Child Development Associate Program	ECD
Education	EDU
Electronics	ELC
Emergency Medical Tech.	EMT
English	ENL
Forestry	FOR
Fire Science	FRS
Geology	GOL
General Studies	GST
Human Development	HDE
Home Economics	HEC
History	HIS
Health & Physical Education	HPE
Industrial Arts	INA
Languages	LAN
Library Science	LIB
Mathematics	MAT
Multi-Occupational program	MOL
Music	MUS
Midwifery	MWF
Nursing (aides)	NUR
Office Education	OED
Philosophy	PHL
Photography	PHO
Physics	PHY
Power Plant Construction	PPC
Power Plant Operator	PPO
Political Science	PSC
Psychology	PSY
Sociology	SOC
Speech and Theater	SPT
Welding	WLD

DEPT CODE	DEPARTMENT NAME
AAT	Auto Apprenticeship Trng.
ACC	Accounting
ACD	Air Conditioning
ADA	Advertising Art
AGC	Assoc. General Contractors
AJS	Administration of Justice
AMT	Aircraft Mfg. Technology
ANT	Anthropology
APD	Art for Pers. Development
ARC	Archaeology
ART	Art
AST	Astronomy
AUT	Automotive Technology
AVM	Aviation Mechanics
BCT	Bld. Construction Tech.
BKL	Bricklaying
BLT	Building Technology
BUS	Business
CED	Cooperative Education
CHM	Chemistry
CRP	Carpentry
CSC	Computer Science
DAT	Dental Assisting
DES	Design
DFT	Drafting
DLT	Dental Lab Technology
DRA	Drama
ECE	Early Childhood Educ.
ECO	Economics
ECT	Engineer.Constructn.Tech.
EDU	Education
ELT	Electrical Apprentice Tng.
EMT	Emergency Med. Technology
ENG	Engineering
ESC	Earth Sciences
ESL	English as a Sec. Lang.
ETR	Electronics
EXP	Exploratory
FDC	Fashion Design & Clothing
FFI	Fast Food Industry
FIN	Finance
FLR	Floorcovering
FRE	French
FSC	Fire Science
FSN	Food Science & Nutrition
GEB	General Business
GER	German
GLZ	Glazing
GMC	General Machine Shop
GRA	Graphic Technology
GTC	General Technology
HCA	Health Care
* HDE	Human Development Ed.
HEC	Home Economics
HED	Health Education
HIS	History
* HCE	Health Continuing Educ.
HMM	Hotel/Motel Management
HON	Honors Program
HSK	Executive Housekeeping
HUM	Humanities
IAU	Institute Automotive Tech
IBC	Intl Bus. Comm. Studies
IFS	Institutional Food Serv.
IIT	Information Industries
IRW	Ironworking
ITA	Italian
JRN	Journalism
LAS	Legal Assistants
LIT	Literature
LSC	Life Sciences
LTH	Lathing
LTP	Landscape Tech. Prog.
MAC	Machine Tool Tech.
MAG	Medical Assistant
MAN	Management
MET	Media Technology
MKT	Marketing
MLA	Military Sci (Air Force)
MRE	Micro-Electronics
MSC	Military Sci(Army)
MTH	Mathematics
MUS	Music
NRS	Nursing
ODT	Ophthalmic Dispensing
OED	Office Education
OEG	Operating Engineers
PAD	Public Administration
PBM	Public Blg. Maintain.
PCM	Plaster & Cement Mason.
PED	Physical Education
PFT	Plumbing & Pipefitting
PGO	Papago
PHI	Philosophy
PHY	Physics
PNT	Painting & Decorating
POL	Political Science
PRD	Professional Develop
PSM	Postal Serv. Mgent.
PSY	Psychology
PTM	Public Transport Main.
PWT	Potable Water Tech.
RAD	Radiologic Tech.
RCF	Rest-Culinary-Food Mgt.
REA	Reading
REC	Recreation
REL	Religion, Comparative
RLS	Real Estate
RTH	Respiratory Therapy
SED	Safety Education
SET	Solar Technology
SLG	Sign Language

SML	Sheet Metal
SOC	Sociology
SPA	Spanish
SPE	Speech
SSE	Social Services
WA	Swahili
TGE	Theory & Prac. of Electric
TSE	Training for Special Educ.
TTM	Transport & Traffic Mgmt.
TVL	Travel - Tourism
WLD	Welding
WRT	Writing
WWT	Wastewater Technology
YCA	Youth Care

University of Arizona
CODING AND ABBREVIATIONS
COLLEGE AND DEPARTMENT

(8/83) RDP

01	10	Agricultural Economics (A EC)
	15	Agricultural Education (A ED)
	40	Animal Sciences (AN S)
	55	Entomology (ENTO)
	60	General Agriculture (AGRI)
	70	Landscape Architecture (L AR)
	72	Natural Resource Recreation (NRR)
	75	Nutrition and Food Sciences (N FS)
	77	Nutritional Sciences (NUSC)
	80	Plant Pathology (PL P)
	82	Plant Sciences (PL S)
	89	Renewable Natural Resources (RNR)
	90	Range Management (RA M)
	91	Soils, Water and Engineering (SWE)
	93	Veterinary Science (V SC)
	95	Watershed Management (WS M)
	98	Wildlife and Fisheries Science (WFSC)
02	05	Child Development and Family Rel. (CDFR)
	07	Clothing and Textiles (C T)
	10	Consumer Studies (C S)
	25	Home Economics (H EC)
	30	Home Economics Education (HE E)
	40	Interior Design (I D)
03	05	Accounting (ACCT)
	07	Business Administration (B AD)
	10	Economics (ECON)
	15	Finance and Real Estate (FIN)
	25	Management (MGMT)
	27	Management Information Systems (MIS)
	30	Marketing (MKTG)
	40	Public Policy, Planning and Admin.(PPPA)
	50	Urban Planning (U PL)
04	03	Business and Career Education (BCED)
	05	Counseling and Guidance (COUN)
	10	Education Foundations and Admin. (EDFA)
	15	Educational Psychology (ED P)
	20	Elementary Education (ELEM)
	25	Higher Education (H ED)
	30	Library Science (LI S)
	35	Reading (RDNG)
	40	Rehabilitation (RHAB)
	45	Secondary Education (S ED)
	50	Special Education (SPEC)
05	05	Aerospace and Mechanical Engineering(A ME)
	10	Civil Engineering (C E)
	15	Electrical and Computer Engineering (ECE)
	20	Engineering Mechanics (E M)
	22	Hydrology (HYDR)
	25	Nuclear and Energy Engineering (NU E)
	50	Systems and Industrial Engineering (SIE)
	60	Water Resource Administration (WRA)
06	05	Art (ART)
	25	Drama (DRAM)
	30	Music (MUS)
	35	Music Individual Studies (MUSI)
	40	Radio-Television (RTV)
	45	Speech and Hearing Sciences (SP H)
	50	Speech Communication (SP C)
07	01	Addiction Studies (AD S)
	23	Health Education (HLTH)
	35	Health Related Professions (HRP)
	50	Medical Technology (MEDT)
	60	Occupational Safety and Health (OSH)
08	02	American Indian Studies (AINS)
	03	Anthropology (ANTH)
	06	Astronomy (ASTR)
	08	Atmospheric Sciences (ATMO)
	10	Black Studies (BL S)
	14	Cellular & Developmental Biology (CELL)
	15	Chemistry (CHEM)
	18	Classics (CLAS)
	19	Computer Science (C SC)
	20	Ecology and Evolutionary Biology (ECOL)
	21	English (ENGL)
	24	French (FREN)
	25	General Biology (GBIO)
	26	Genetics (GENE)
	28	Geography & Regional Development (GEOG)
	29	Geosciences (GEOS)
	30	German (GER)
	33	History (HIST)
	34	Humanities (HUM)
	36	Italian (ITAL)
	39	Journalism (JOUR)
	40	Latin American Studies (LA S)
	41	Linguistics (LING)
	42	Mathematics (MATH)
	46	Mexican-American Studies (MAS)
	48	Microbiology (MICR)
	54	Oriental Studies (OR S)
	57	Philosophy (PHIL)
	60	Physics (PHYS)
	62	Planetary Sciences (PTYS)
	63	Political Science (POL)
	64	Portuguese (PORT)
	66	Psychology (PSYC)
	68	Religious Studies (RELI)
	69	Romance Languages (R LG)
	70	Russian and Slavic Languages (RUSS)
	72	Sociology (SOC)
	73	Southwest Center (SWC)
	75	Spanish (SPAN)
	85	Women's Studies (W S)

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CODING AND ABBREVIATIONS
COLLEGE AND DEPARTMENT

09 05 Chemical Engineering (CH E)
10 Geological Engineering (G EN)
25 Metallurgical Engineering (MET)
28 Mineral Economics (MNEC)
30 Mining Engineering (MN E)

10 25 Nursing (NURS)

11 20 Law (LAW)

12 15 Pharmaceutical Sciences (PHSC)
16 Pharmacology and Toxicology (PCOL)
20 Pharmacy Practice (PHPR)
30 Toxicology (TOX)

14 10 Architecture (ARCH)

15 05 Anatomy (ANAT)
10 Anesthesiology (ANES)
20 Biochemistry (BIOC)
25 Family and Community Medicine (F CM)
30 Internal Medicine (IMED)
55 Molecular and Medical Microbiology (MMIC)
56 Medicine (MED)
57 Neurology (NEUR)
60 Obstetrics and Gynecology (OB G)
65 Ophthalmology (OPH)
70 Pathology (PATH)
71 Pediatrics (PED)
72 Pharmacology (PHCL)
75 Physiology (PSIO)
80 Psychiatry (PSYI)
85 Radiology (RADI)
90 Surgery (SURG)

97 General

15 Military Aerospace Studies (ML A)
20 Military Science (ML S)
25 Physical Education (PHED)

98 Interdepartmental

03 Animal Physiology (A PH)
05 Arid Lands Resource Sciences (AR L)
15 Gerontology (GERO)
20 Honors (HONR)
27 Interdisciplinary Programs (IDIS)
35 Optical Sciences (OPTI)
45 Statistics (STAT)
90 Coop Work Phase (COOP)

(RDP)

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LIST DEPARTMENTS BY @ID 09:13:13   02-13-84       PAGE 1          :
DEPARTMENTS          DESCRIPTION       .....      DIVISION                .....

ACC                  ACCOUNTING                  BU BUSINESS
AFR                  AIR FORCE ROTC
AGR                  AGRICULTURE                 AP APPLIED SCI. & TECH.
AHS                  ALLIED HEALTH SCI.
AIB                  BANKING
AIS                  AMER. INDIAN STUDIES
AJS                  ADMIN. OF JUSTICE
ANT                  ANTHROPOLOGY
ART                  ART
AST                  APPLIED SCI. & TECH.
AUT                  AUTOMOTIVE TECH
AVT                  PROPULSION TECH.-AV
BDP                  ACADEMIC COMPUTING          AC
BIO                  BIOLOGY
BSA                  BUSINESS ADMIN.
BUS                  BUSINESS ADMIN.
CEC                  CONSUMER ECONOMICS'
CHM                  CHEMISTRY
CHP                  COLLEGE HONORS PRO.
COU                  COUNSELING & GUID.
Press <NEW LINE> to continue...
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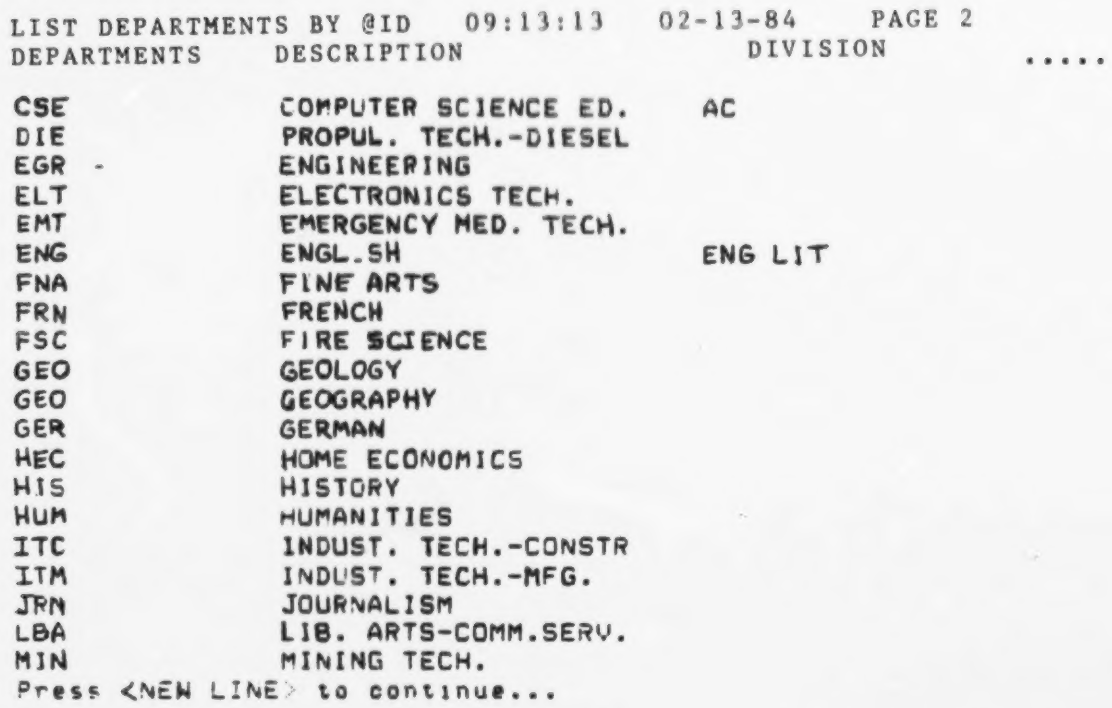

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LIST DEPARTMENTS BY @ID   09:13:13   02-13-84    PAGE 2
DEPARTMENTS    DESCRIPTION                  DIVISION        .....

CSE            COMPUTER SCIENCE ED.     AC
DIE            PROPUL. TECH.-DIESEL
EGR -          ENGINEERING
ELT            ELECTRONICS TECH.
EMT            EMERGENCY MED. TECH.
ENG            ENGL.SH                  ENG LIT
FNA            FINE ARTS
FRN            FRENCH
FSC            FIRE SCIENCE
GEO            GEOLOGY
GEO            GEOGRAPHY
GER            GERMAN
HEC            HOME ECONOMICS
HIS            HISTORY
HUM            HUMANITIES
ITC            INDUST. TECH.-CONSTR
ITM            INDUST. TECH.-MFG.
JRN            JOURNALISM
LBA            LIB. ARTS-COMM.SERV.
MIN            MINING TECH.
Press <NEW LINE> to continue...
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LIST DEPARTMENTS BY @ID      09:13:13      02-13-84     PAGE 3
DEPARTMENTS           DESCRIPTION             .      DIVISION                .....

MMM                   MKTG.,MGMT.,&MERCH.
MTH-                  MATHEMATICS                   SM SCIENCE & MATH
MUS                   MUSIC
NCP                   NON CREDIT PROGRAMS
NCR                   NON CREDIT
NSG                   NURSING
OAD                   OFFICE ADMIN.
PAD                   PUBLIC ADMIN.
PHE                   PHYSICAL EDUCATION
PHI                   PHILOSOPHY
PHS                   PHYSICAL SCIENCE
PHY                   PHYSICS
POS                   POLITICAL SCIENCE
PPO                   POWER PLANT OPER.
PSY                   PSYCHOLOGY
RES                   REAL ESTATE
RET                   RETIREMENT
RUS                   RUSSIAN
SBM                   SMALL BUSINESS MGMT.
SCM                   SCI.&MATH-COMM.SERV.
Press  NEW LINE  to continue...
LIST DEPARTMENTS BY @ID 09:13:13    02-13-84      PAGE   4
DEPARTMENTS           DESCRIPTION                     DIVISION .............

SOC                   SOCIAL SCIENCE
SPC                   SPEECH
SPN                   SPANISH
SSC                   SOCIAL SCIENCE
TAE                   TEACHER AIDE EDUC.
THR                   THEATER
VCE                   VOC. COOP. EDUC.

67 records listed.

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UCI/ASSIST

Guidelines for Formatting Data

Receiving Institution:

- Translating degree requirements for the receiving institution from the catalogue into an "ASSIST-usable" format is the first step towards adding an institution to the system. The following guidelines will help you to format degree requirement data so that ASSIST will be able to use it.

The PCT2 (Progress Check Table 2) is the primary table used in formatting the degree requirement data. Please refer to the attached example of the PCT2 while following these step by step instructions.

1.) PCAT - Create a PCAT for each major or degree requirement area. (e.g., BREADTH, ANTHRO, SOC.SCI.SCHOOL)

2.) Req - Assign a number to each degree requirement within a PCAT and enter it in the Req column on the PCT2 form. For example, lower division writing is UCI's first requirement listed in the BREADTH PCAT so its Req number is 1.

3.) Seq - Assign a number to each option for satisfying a requirement and enter it in the Seq column on the PCT2 form. There may be one option or several options for satisfying any given requirement.

4.) Groups - Groups are lists of courses (or one course) that satisfy the requirement. If a requirement can be satisfied by choosing fewer courses than there are courses available in a group (e.g., three courses are required from a group of ten that could be taken), then you would refer to the PCT1 or "Progress Check Table 1" for the complete list of possible courses. To use the PCT1 form:

  a.) Identify the PCAT (major area) for which the group of courses satisfies a requirement.

  b.) Identify the group number you wish to assign to the group of courses (e.g., G1, G2, G3) and enter that group number on the PCT2 form in the appropriate column as well as entering it on the PCT1 form.

  c.) List every course in the group as it appears in the catalogue or schedule of classes by course name and number (e.g., Soc Sci 8A). It is important to standardize the course list you will use for ASSIST and stick with your standard.

5.) Count - Enter the number of courses to be used to satisfy a requirement in the Count column on the PCT2 form. If all the courses in the group are necessary to satisfy the requirement, the count for each course would be 1. If three courses are needed from a group of ten to satisfy the requirement, the count would be 3.

6.) Use - The Use column on the PCT2 form allows you to indicate whether or not a course can be used to satisfy more than one requirement within a degree. If a course can be used to satisfy more than one requirement, enter a Y for yes in the Use column. If a course can only be used to satisfy one requirement within a degree, enter an N for no in the Use column. Usually, the Use column will contain a Y. You should use an N for requirements such as "three social science courses from any level are required in addition to six upper division social science courses."

7.) Grade - If a minimum grade is necessary to fulfill the requirement, enter that grade in the Grade column on the PCT2 form.

8.) Units - If a requirement is defined in terms of units instead of courses, enter the units required in the Units column on the PCT2 form.

9.) Requisite Title - Enter the title of the requirement in the Requisite Title column on the PCT2 form (e.g., Lower Division Writing, Natural Sciences....for the BREADTH PCAT).

NOTE: Generic courses were created to allow transfer courses that aren't "equivalent" to any courses at a given receiving institution to be used in lieu of a receiving institution's courses for satisfying degree requirements. These generic courses need to be created for the receiving insitution to accomodate the transferring courses. They must be included in the receiving institution's course list and entered into the system. Generic courses should also be used in the same way as groups from the DCT1. Just as the DCT1 allows the system to retrieve groups of courses from the receiving institution to satisfy degree requirements, the generic courses allow the system to retrieve transfer courses from a sending institution to satisfy degree requirements.

SAMPLE

RECEIVING INSTITUTION (PCT2 - Progress Check Table)

Major Area (PCAT)	Req	Seq	Groups	Count	Use	Grade	Units	Requisite Title
BREADTH	1	1	Writing 39B	1	Y			Lower Division Writing
			39C	1	Y			
	1	2	WR WKsp 1A	1	Y			Lower Division Writing
			Human 1B	1	Y			
			1C	1	Y			
	1	3	WR WKsp 1A	1	Y			Lower Division Writing
			Human 15	1	Y			
			16	1	Y			
	1	4	Gen Breadth 1	1	Y			Lower Division Writing
			Gen Breadth 1	1	Y			
	2	1	Writing 139	1	Y	C		Upper Division Writing
	2	2	Gen Breadth 2	1	Y	C		Upper Division Writing
	3	1	G1	3	Y		12.0	Natural Sciences
	3	2	Gen Breadth 3	1	Y		12.0	Natural Sciences
			Gen Breadth 3	1	Y			
			Gen Breadth 3	1	Y			

SAMPLE

COURSE GROUPINGS
(Progress Check Table 1 - PCT1)

MAJOR AREA (PCAT)	GROUP #	COURSES
BREADTH	G1	Bio Sci 1A
		1B
		1C
		1D
		1E
		1F
		80
		81
	G2	Physics 20A
		20B
		20C
		20D
	G3	Physics 10
		16
		20A
		20B
		20C
		20D
	G4	Soc Sci 1A
		2A
		2B
		2C
		34G
		70A
		70B

SAMPLE

LIST OF GENERICS FOR: BREADTH

Generic	Course Group
Gen Breadth 1	Lower Division Writing
Gen Breadth 2	Upper Division Writing
Gen Breadth 3	Natural Sciences: Biological Sciences
Gen Breadth 4	Natural Sciences: Chemistry
Gen Breadth 5	Natural Sciences: Physics
Gen Breadth 6	Natural Sciences: Natural Science
Gen Breadth 7	Natural Sciences: Environmental Science

UCI/ASSIST

Guidelines for Formatting Data

Sending Institution:

Articulation agreements between a sending institution and a receiving institution need to be translated into an "ASSIST-usable" format. The ILOT (In Lieu of Table) form should be used to facilitate this translation. Please refer to the attached ILOT and PCT2 forms while following these step by step instructions.

1.) I No. - Assign an ID number to each record you create for the ILOT. Enter that number in the I No. column.

2.) Major Area - Indicate the PCAT and Req and Seq numbers that the transferable courses articulate to for the given receiving institution. For example, English 1 and 2 at LAHC will satisfy the lower division writing requirement at UCI. The PCAT for lower division writing at UCI is BREADTH, the Req is 1 and Seq number would be 4 which refers to Gen Breadth 1. Gen Breadth 1 is the generic course created to accomodate transferable courses that articulate to UCI's lower division writing requirement.

3.) Sending Courses - List the sending courses needed to satisfy the requirement at the receiving institution.

4.) Send. Count - Enter the number of sending courses needed to satisfy the receiving institution's requirement in the Send.Count column. (e.g., 2 semester courses from LAHC such as English 1 and 2 would satisfy the lower division writing requirement at UCI.)

5.) Receiving Courses - List the receiving institution's courses that articulate with the sending institution's courses for satisfying the requirement.

6.) Rec. Count - Enter the number of receiving courses needed to satisfy the requirement in the Rec. Count column.

7.) Requisite Title - The Requisite Title on the ILOT form should be the same as the Requisite Title on the PCT2 form for any given degree requirement.

SAMPLE

SENDING INSTITUTION (ILOT Table)

For: LAHC

I No (ID)	Major Area (PCAT)	*Req	*Seq	Sending Courses	Send. Count	Receiving Courses	Rec. Count	Requisite Title
1	BREADTH	1	4	English 1	2	Gen Breadth 1	2	Lower Division Writin
				2		Gen Breadth 1		
2	BREADTH	3	2	Anatomy 1	2	Gen Breadth 3	3	Natural Science
				Biology 1		Gen Breadth 3		
				3		Gen Breadth 3		
				6				
				7				
				Botany 1				
				Environmental Sci 2				
				Microbiology 1				
				20				
				Physiology 9				
				Zoology 1				
				2				
				5				
3	BREADTH	3	4	Chem 1	2	Gen Breadth 4	3	Natural Sciences
				2		Gen Breadth 4		
						Gen Breadth 4		

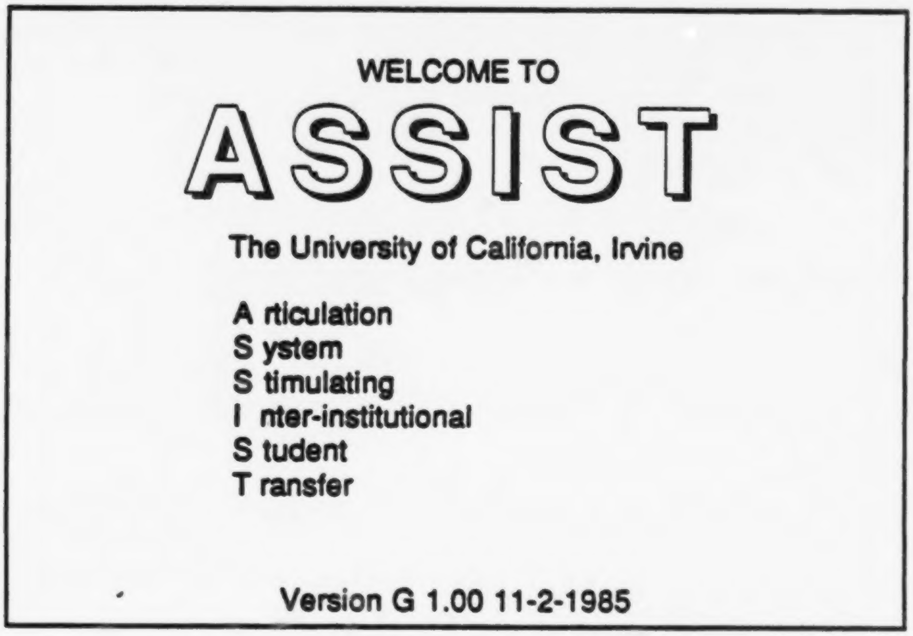
UCI/ASSIST

Procedure Manual for Data Entry

Getting Started:

Turn on the power switches of
(1) the IBM AT or PC,
(2) the video monitor, and
(3) the printer.

Once the power is on, and the system is warmed up, you will see this screen:



WELCOME TO

ASSIST

The University of California, Irvine

A rticulation
S ystem
S timulating
I nter-institutional
S tudent
T ransfer

Version G 1.00 11-2-1985

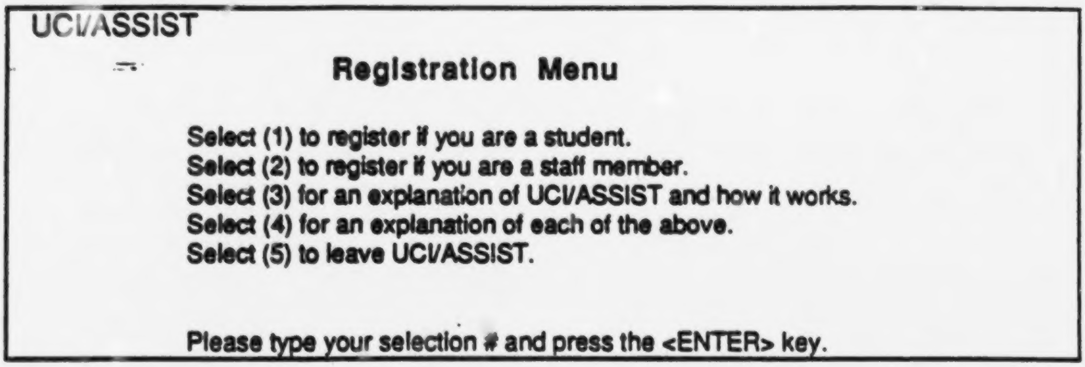
Type "A" to advance to the next screen and press ENTER, or
type "L" to leave the screen and press ENTER.

If the power is already on and some other screen is displayed, return to the WELCOME screen by:

Selecting the LEAVE UCI/ASSIST option , or
selecting the END THIS SESSION option on any menu, or
typing END to return to a menu from any other screen.

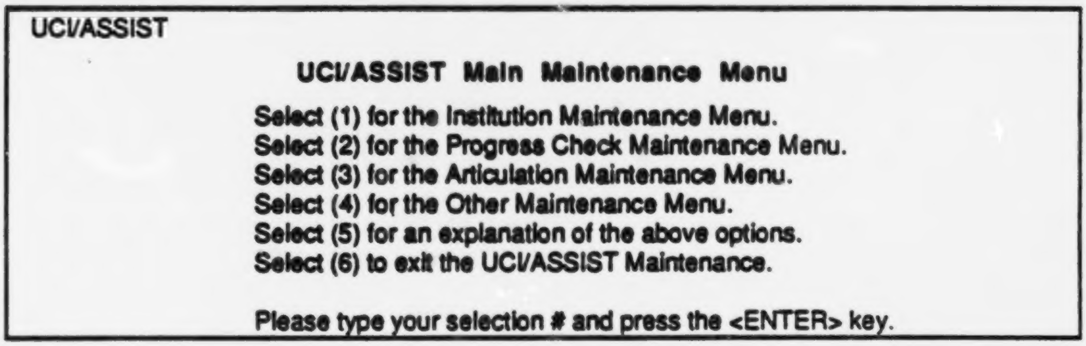
Leaving ASSIST:

After leaving the WELCOME screen, you are presented with the REGISTRATION MENU.



```
UCI/ASSIST
                         Registration Menu

        Select (1) to register if you are a student.
        Select (2) to register if you are a staff member.
        Select (3) for an explanation of UCI/ASSIST and how it works.
        Select (4) for an explanation of each of the above.
        Select (5) to leave UCI/ASSIST.


        Please type your selection # and press the <ENTER> key.
```

In order to enter data, you need to leave UCI/ASSIST by selecting option (5) on the REGISTRATION MENU. The system will then ask you for the PASSWORD to leave ASSIST. The PASSWORD is ETOUCH. Type ETOUCH and press ENTER. The system will then show you a colon and a blinking prompt at the bottom of the screen. Type DO.MEN.MAINT and press ENTER to call up the UCI/ASSIST MAIN MAINTENANCE MENU.



```
UCI/ASSIST
                    UCI/ASSIST Main Maintenance Menu
            Select (1) for the Institution Maintenance Menu.
            Select (2) for the Progress Check Maintenance Menu.
            Select (3) for the Articulation Maintenance Menu.
            Select (4) for the Other Maintenance Menu.
            Select (5) for an explanation of the above options.
            Select (6) to exit the UCI/ASSIST Maintenance.

            Please type your selection # and press the <ENTER> key.
```

Select (1) to enter data for a new institution or to enter Master Curriculum data. The Master Curriculum file contains course information from the catalogue.

Select (2) to enter data for the Progress Check (e.g., PCAT's, PCT2 Headers, PCT2 data and PCT1 data).

Select (3) to enter articulation data (e.g., ILOT data).

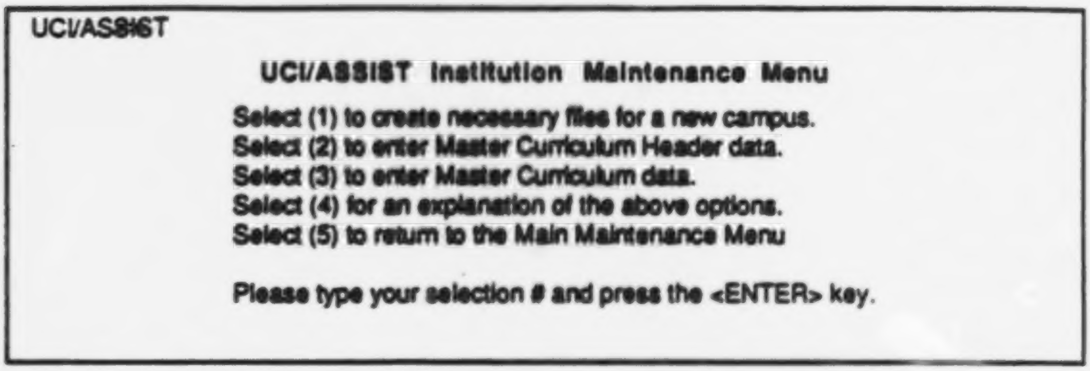
Select (4) to enter other types of data used by UCI/ASSIST (e.g., textual documents, to edit staff and student records, or to edit the grade point table).

Select (5) for HELP.

Select (6) to leave the Maintenance program.

The Institution Maintenance Menu:

If you selected (1) from the Main Maintenance Menu , the system will take you to the INSTITUTION MAINTENANCE MENU.

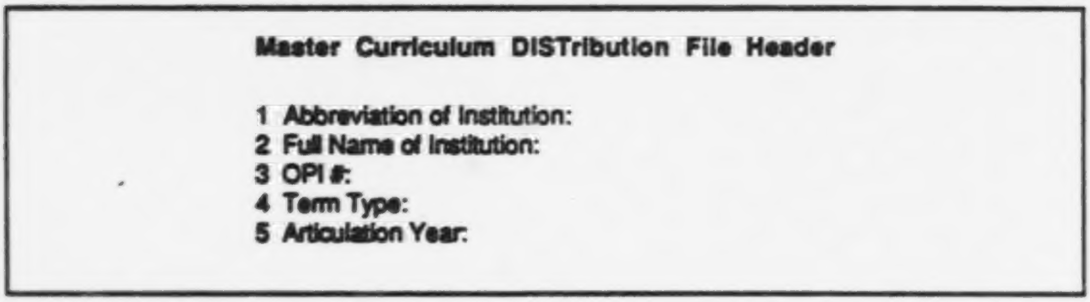


```
UCI/ASSIST
                UCI/ASSIST  Institution  Maintenance  Menu

             Select (1) to create necessary files for a new campus.
             Select (2) to enter Master Curriculum Header data.
             Select (3) to enter Master Curriculum data.
             Select (4) for an explanation of the above options.
             Select (5) to return to the Main Maintenance Menu

             Please type your selection # and press the <ENTER> key.
```

When entering data for a new institution:

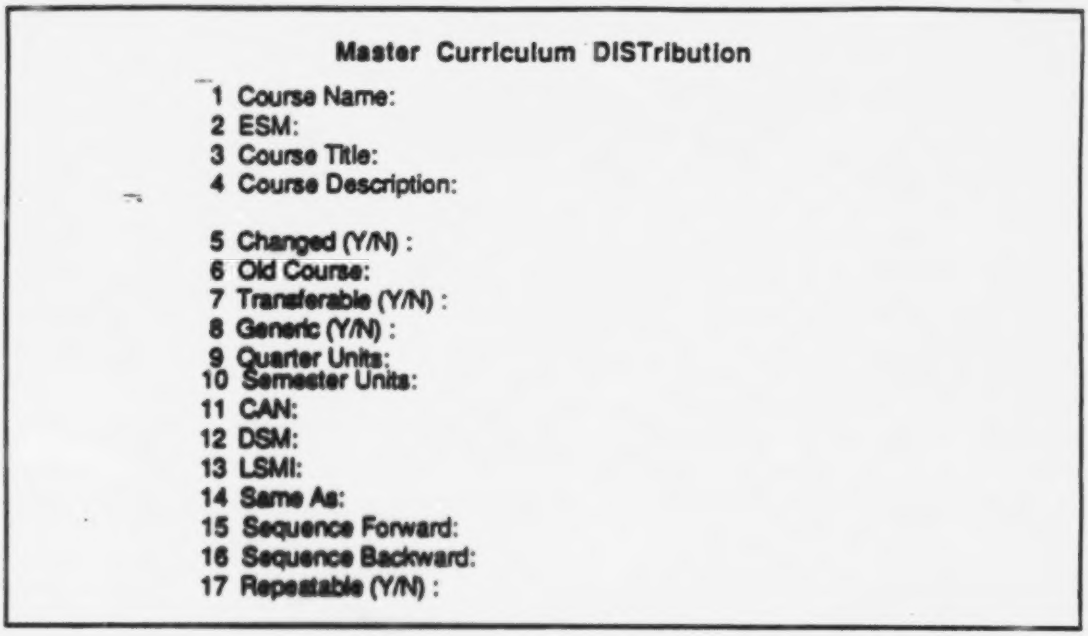
1.) Select (1) and press ENTER to create the necessary files for the institution. The drive letter that should be entered for a new institution is 'C'.

2.) Select (2) to enter Master Curriculum Header data for the institution.
    a.) The OPI # refers to the following codes:
        800 for 4-year institutions
        600 for 2-year institutions
    b.) The term type is either 'S' for a semester system or 'Q' for a quarter system.



```
             Master  Curriculum  DISTribution  File  Header

             1  Abbreviation of Institution:
             2  Full Name of Institution:
             3  OPI #:
             4  Term Type:
             5  Articulation Year:
```

3.) Select (3) to enter the Master Curriculum Data. The following entry screen will appear after you have entered the abbreviation of the institution for which you wish to enter data:



Master Curriculum DISTribution

1 Course Name:
2 ESM:
3 Course Title:
4 Course Description:

5 Changed (Y/N) :
6 Old Course:
7 Transferable (Y/N) :
8 Generic (Y/N) :
9 Quarter Units:
10 Semester Units:
11 CAN:
12 DSM:
13 LSMI:
14 Same As:
15 Sequence Forward:
16 Sequence Backward:
17 Repeatable (Y/N) :

a.) The only items on this screen that must be entered are:

1 Course Name:
3 Course Title:
7 Transferable (Y/N) :
8 Generic (Y/N) :
9 Quarter Units:
or
10 Semester Units:
14 Same As:
17 Repeatable:

b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen. All courses offered at an institution must be entered into the Master Curriculum Distribution file before any data can be entered from the PCT2, PCT1, or ILOT forms.

c.) Type "END" and press ENTER in the Course Name field of a blank entry screen when you've finished entering the Master Curriculum data, and the system will return you to the INSTITUTION MAINTENANCE MENU.

4.) Select (5) and press ENTER to return to the MAIN MAINTENENCE MENU.

NOTE: Please refer to the Glossary for definitions of the items on the Master Curriculum Distribution entry screen.

To change any item:

1.) Call up the appropriate entry screen from the INSTITUTION MAINTENANCE MENU.

2.) Type the old data into the first field of the entry screen to call up the record to be changed and press ENTER.

3.) Type the number of the item you wish to change and press ENTER.

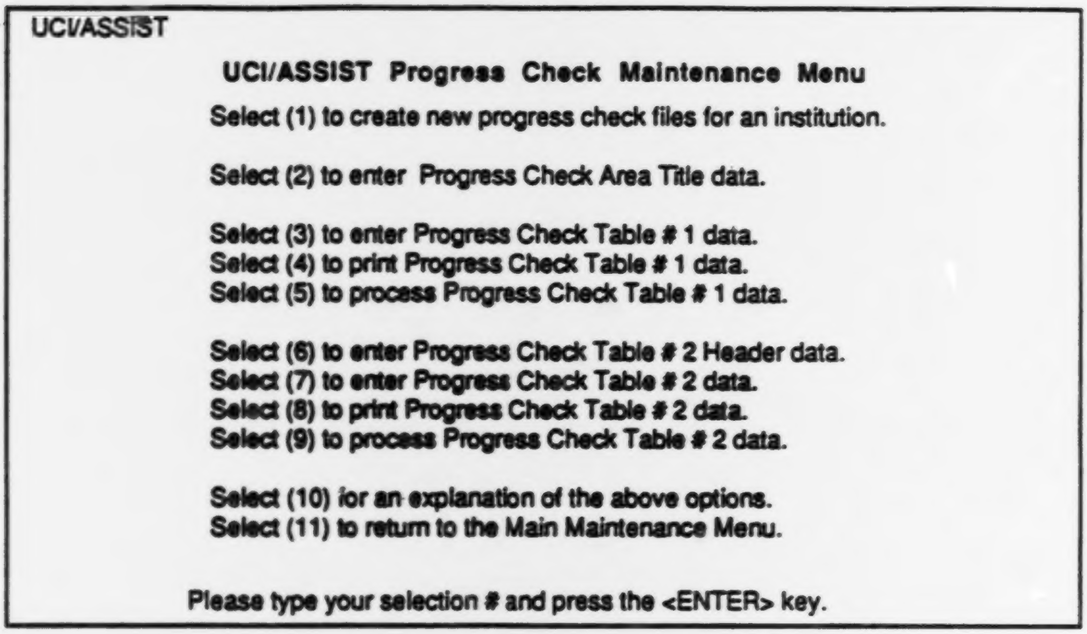
4.) Type the new information and press ENTER.

5.) Press ENTER again to continue to the next entry screen.

6.) Type "END" in the first field of a blank entry screen to return to the INSTITUTION MAINTENANCE MENU.

The Progress Check Maintenance Menu:

If you selected (2) from the MAIN MAINTENANCE MENU, the system will take you to the PROGRESS CHECK MAINTENANCE MENU.

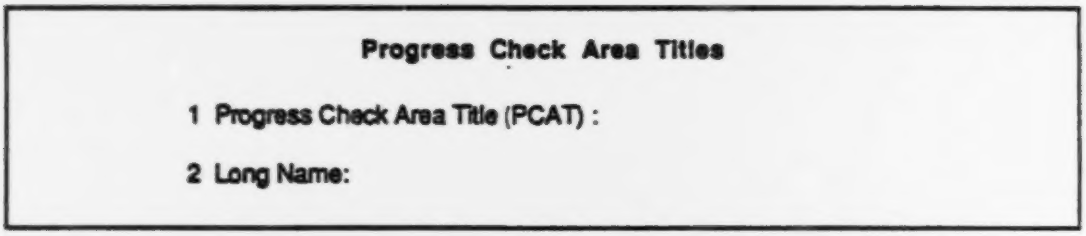


```
UCI/ASSIST
              UCI/ASSIST Progress Check Maintenance Menu
              Select (1) to create new progress check files for an institution.

              Select (2) to enter  Progress Check Area Title data.

              Select (3) to enter Progress Check Table # 1 data.
              Select (4) to print Progress Check Table # 1 data.
              Select (5) to process Progress Check Table # 1 data.

              Select (6) to enter Progress Check Table # 2 Header data.
              Select (7) to enter Progress Check Table # 2 data.
              Select (8) to print Progress Check Table # 2 data.
              Select (9) to process Progress Check Table # 2 data.

              Select (10) for an explanation of the above options.
              Select (11) to return to the Main Maintenance Menu.

            Please type your selection # and press the <ENTER> key.
```

When entering data for a new institution:

1.) Select (1) and press ENTER to create new progress check files. The drive letter to be used to create all progress check files is 'C'.

2.) Select (2) and press ENTER to call up the "Progress Check Area Titles" or PCAT entry screen after entering the abbreviation of the institution you wish to use.



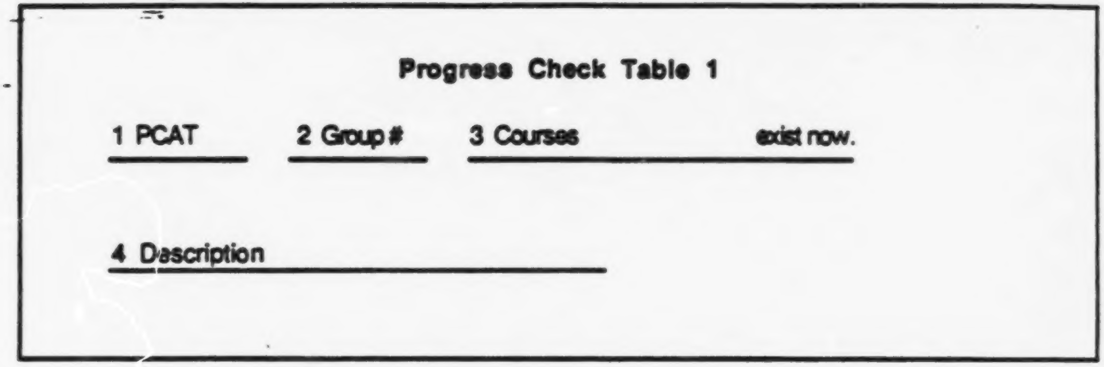
```
                      Progress Check Area Titles

            1  Progress Check Area Title (PCAT) :

            2  Long Name:
```

a.) Each screen accomodates one PCAT. Type the information requested at the bottom of the screen and press ENTER for each item.

b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen.

c.) Type "END" in the first field of a blank entry screen and press ENTER to return to the PROGRESS CHECK MAINTENANCE MENU.

3.) Select (3) and press ENTER to call up the "Progress Check Table 1" or PCT1 entry screen after entering the abbreviation of the institution you wish to use.



Progress Check Table 1

1 PCAT ______ 2 Group # ______ 3 Courses ______ exist now.

4 Description ______________________

a.) Each screen accomodates one PCT1 record. Type the information requested at the blinking prompt and press ENTER for each item. The Description field of the "Progress Check Table 1" entry screen should only be used to enter text which will be substituted for groups of courses that are excessively long.

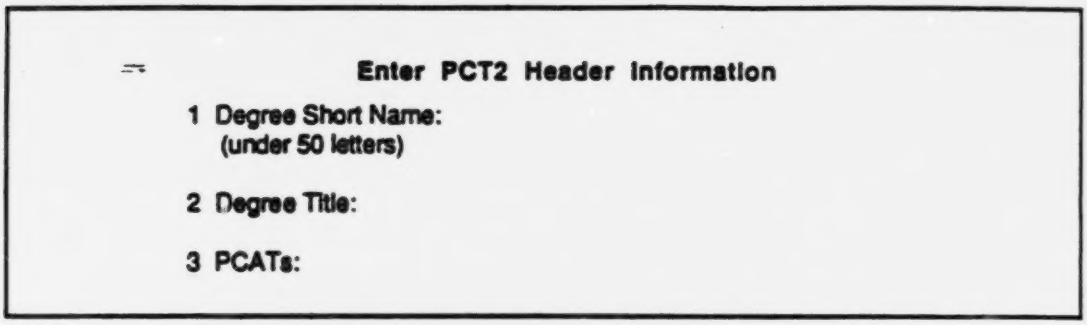
b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen.

c.) Type "END" in the first field of a blank entry screen to return to the PROGRESS CHECK MAINTENANCE MENU.

4.) Select (4) and press ENTER after you've entered the PCT1 data if you wish to have a printout of the PCT1. The system will ask you for the abbreviation of the institution you wish to use.

5.) Select (5) and press ENTER to process the PCT1 data that you've entered. You will need to tell the system which institution's PCT1 you wish to process by entering the appropriate abbreviation. You must process the PCT1 data after entering it so that the system can access it to perform progress checks.

6.) Select (6) and press ENTER to call up the "Progress Check Table 2 Header" or PCT2 Header entry screen after entering the abbreviation of the institution you wish to use.



Enter PCT2 Header Information

1 Degree Short Name:
(under 50 letters)

2 Degree Title:

3 PCATs:

a.) Generally, the Degree Name should be the PCAT. (e.g., BIO.SCI.ANAT for the Biological Sciences degree with a specialization in Anatomy)

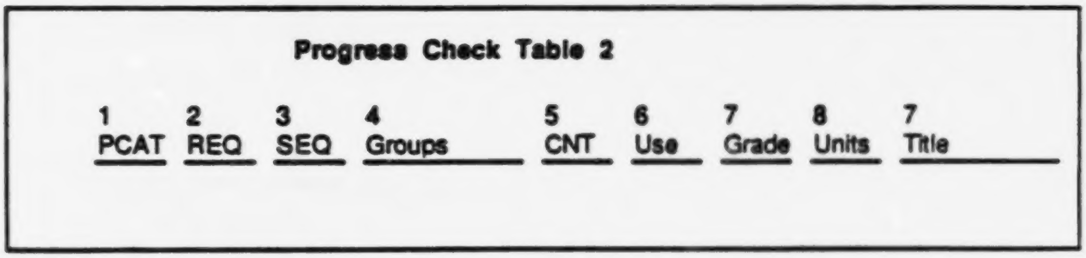
b.) Field #3 (PCATs) asks you to enter all the PCATs required to complete a degree. For example, the PCATs needed to complete the Biological Sciences degree with a specialization in Anatomy are BIO.SCI.BR, BIO.SCI and BIO.SCI.ANAT.

c.) Each screen accomodates one degree. Type the information requested at the bottom of the screen and press ENTER for each item. Press ENTER twice after you finish entering all PCATs needed in field #3 in order to continue to the end of the screen.

d.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen.

e.) Type "END" in the first field of a blank entry screen and press ENTER to return to the PROGRESS CHECK MAINTENANCE MENU.

7.) Select (7) and press ENTER to continue to the "Progress Check Table 2" or PCT2 entry screen after entering the abbreviation of the institution you wish to use.



Progress Check Table 2

1 PCAT	2 REQ	3 SEQ	4 Groups	5 CNT	6 Use	7 Grade	8 Units	7 Title

a.) Each screen accomodates one record or "option for satisfying a requirement" from the PCT2 form.Type the information requested at the blinking prompt and press ENTER for each item. Press ENTER twice to continue to the next field from a multiple entry field. The multiple entry fields are the Groups field, the CNT (Count) field, the Use field, the Grade field and the Units field. You must enter something in the CNT and Use fields, but the Grade and Units fields are optional.

b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen.

c.) Type "END" in the first field of a blank entry screen and press ENTER to return the PROGRESS CHECK MAINTENANCE MENU.

8.) Select (8) and press ENTER after you've entered the PCT2 data if you wish to have a printout of the PCT2. The system will ask you for the abbreviation of the institution you wish to use.

9.) Select (9) and press ENTER to process the PCT2 data that you've entered. You will need to tell the system which institution's PCT2 you wish to process by entering the appropriate abbreviation. You must process the PCT2 data after entering it so that the system can access it to perform transfer/degree checks.

10.) Select (11) and press ENTER to return to the MAIN MAINTENANCE MENU.

To change any item:

1.) Call up the appropriate entry screen from the PROGRESS CHECK MAINTENANCE MENU.

2.) Type the old data into the first field of the entry screen to call up the record to be changed and press ENTER.

3.) Type the number of the item you wish to change and press ENTER.

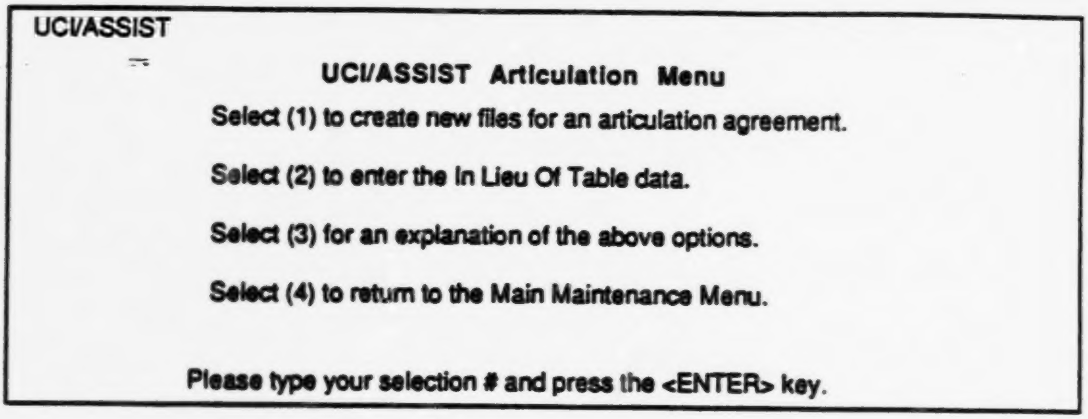
4.) Type the new information and press ENTER.

5.) Press ENTER again to continue to the next entry screen.

6.) Type "END" in the first field of a blank entry screen to return to the PROGRESS CHECK MAINTENANCE MENU.

The Articulation Menu:

If you selected (3) from the MAIN MAINTENANCE MENU, the system will take you to the ARTICULATION MENU.



UCI/ASSIST

UCI/ASSIST Articulation Menu

Select (1) to create new files for an articulation agreement.

Select (2) to enter the In Lieu Of Table data.

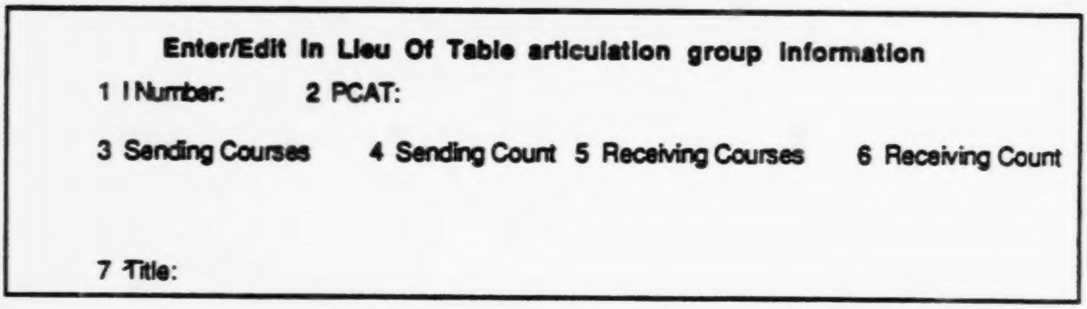
Select (3) for an explanation of the above options.

Select (4) to return to the Main Maintenance Menu.

Please type your selection # and press the <ENTER> key.

1.) Select (1) and press ENTER to create the necessary files for entering a new articulation agreement. The drive letter 'C' should be used to create the new articulation files.

2.) Select (2) and press ENTER to call up the "In Lieu of Table" entry screen. The system will ask for the abbreviations of the sending institution and the receiving institution to be used.



Enter/Edit In Lieu Of Table articulation group information

1 I Number: 2 PCAT:

3 Sending Courses 4 Sending Count 5 Receiving Courses 6 Receiving Count

7 Title:

a.) Each screen accomodates one record or "option for satisfying a receiving institution's degree requirement with a sending institution's course or courses". Type the information requested at the blinking prompt and press ENTER for each item. Press ENTER twice after the last entry in a multiple entry field. The multiple entry fields are the Sending Courses field and the Receiving Courses field.

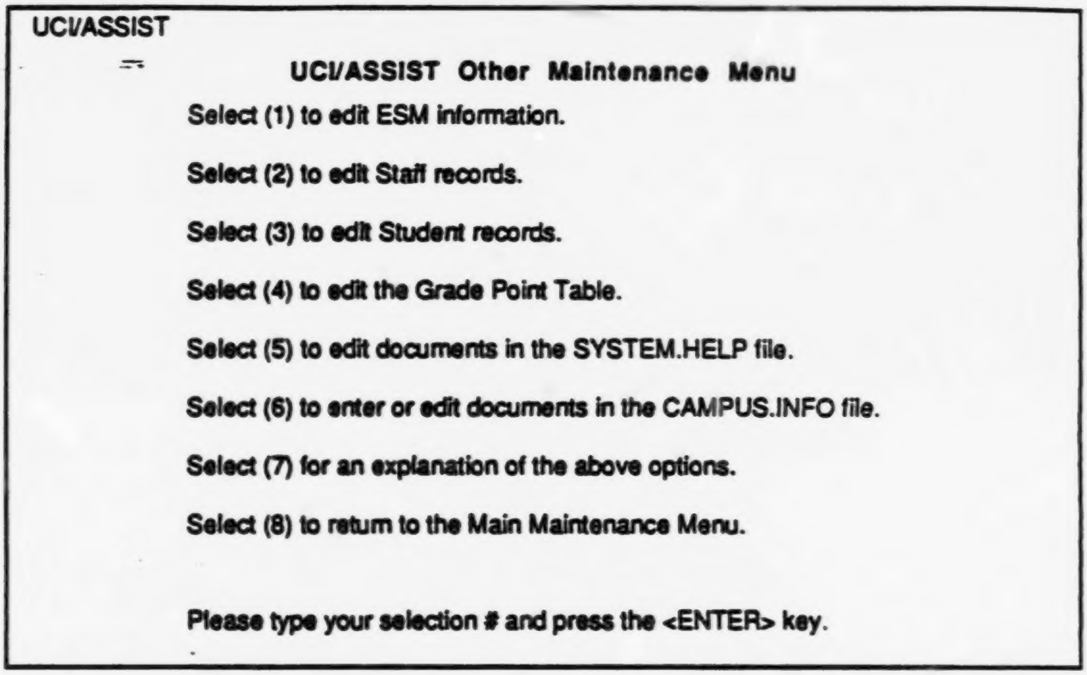
b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to another blank entry screen.

c.) Type "END" in the first field of a blank entry screen and press ENTER to return to the ARTICULATION MENU.

3.) Select (4) and press ENTER to return to the MAIN MAINTENANCE MENU.

The Other Maintenance Menu:

If you selected (4) from the MAIN MAINTENANCE MENU, the system will take you to the OTHER MAINTENANCE MENU.



UCI/ASSIST

UCI/ASSIST Other Maintenance Menu

Select (1) to edit ESM information.

Select (2) to edit Staff records.

Select (3) to edit Student records.

Select (4) to edit the Grade Point Table.

Select (5) to edit documents in the SYSTEM.HELP file.

Select (6) to enter or edit documents in the CAMPUS.INFO file.

Select (7) for an explanation of the above options.

Select (8) to return to the Main Maintenance Menu.

Please type your selection # and press the <ENTER> key.

1.) If you select options (1) through (4) on the OTHER MAINTENANCE MENU, the system will call up the appropriate entry screen to allow you to edit records.

    a.) Each screen accomodates one record. Type the information requested at the blinking prompt and press ENTER for each item.

    b.) Pressing ENTER after entering all the information requested on the screen and/or changing any item will take you to a blank entry screen.

    c.) Type "END" in the first field of a blank entry screen and press ENTER to return to the OTHER MAINTENANCE MENU.

2.) If you select options (5) or (6) on the OTHER MAINTENANCE MENU, the system will call up a list of documents in the SYSTEM.HELP file or the CAMPUS.INFO file. Choose the document you wish to edit by typing the item number and pressing ENTER. After editing the document, press SHIFT and F2 to return to the OTHER MAINTENANCE MENU.

3.) Select (7) and press ENTER to return to the MAIN MAINTENANCE MENU.

Getting Out:

Select (6) from the MAIN MAINTENANCE MENU to leave UCI/ASSIST Maintenance and the system will return to the command level. If you wish to return to UCI/ASSIST, type ASSIST after the colon at the bottom of the screen and press ENTER. Otherwise, type OFF after the colon and press ENTER, then simply turn off the power switches for:

(1) the IBM AT or PC,
(2) the video monitor, and
(3) the printer.

WICHE Articulation-Transfer Project

Western Interstate Commission for Higher Education
P.O. Drawer P
Boulder, CO 80302

This manual and companion publications are funded by the Western Interstate Commission for Higher Education (WICHE), through a grant from the Fund for the Improvement of Postsecondary Education (FIPSE). It is one segment of a cooperative venture among Arizona, California, Colorado, and New Mexico exploring ways in which articulation between community colleges and four year institutions can be promoted and increased. WICHE is a nonprofit regional organization helping member states work together to provide high-quality, cost-effective programs to meet the education and manpower needs of the West. Members are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Martha Romero	*Project Director*
Katy Wogan	*Administrative Secretary*

UCI/ASSIST

Office of Admissions
University of California, Irvine
Irvine, CA 92717

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UCI assumes no responsibility for the legal use or misuse of student records processed locally by the system, nor for any understanding among students, counselors, faculty, or administrators of any sending or receiving institutions arising from the use of UCI/ASSIST.

UCI/ASSIST software is recommended for use with the following minimum configuration:

IBM PC AT
DOS 3.1
2 megabytes RAM
2 Maxtor 1140 Winchester disk drives
80287 math coprocessor
Hewlett Packard ThinkJet printer
Enhanced graphics adapter

University of California, Irvine Project Staff

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University of California, Irvine
ARTICULATION SYSTEM TO STIMULATE
INTERINSTITUTIONAL STUDENT TRANSFER

UCI/ASSIST

User Manual
for
Counselors and Prospective Transfer Students

Getting Acquainted:

Welcome to UCI/ASSIST!

This system is designed to help students transfer effectively from one institution to another, usually from a community college to a four-year institution. UCI/ASSIST helps prospective transfer students to:

- locate a variety of information about a prospective campus, its services and its academic programs quickly and easily,
- determine and compare progress toward different degree objectives at a given receiving (transfer) institution,
- determine and compare progress toward specific degree objectives at different receiving institutions, and
- find specific courses at one institution which transfer for credit and will satisfy requirements for graduation at a receiving institution.

Using UCI/ASSIST.

A user with little or no microcomputer experience will soon be comfortable with the system. Most interactions simply require choosing from a "menu" of alternatives. For a thorough introduction to UCI/ASSIST, one of the options on the first menu displayed is for detailed information on the use of the system.

There are a few simple keyboard commands:

- "A" to advance to the next screen,
- "B" to return to the previous screen,
- "L" to leave a screen of text, or
- "P" to print a paper copy of any screen of text you are viewing on the printer at the UCI/ASSIST work station.
- The ENTER key is used to advance from one item on the screen to the next, to go to the next screen after typing "A", and to confirm any text or response the user wants to enter.

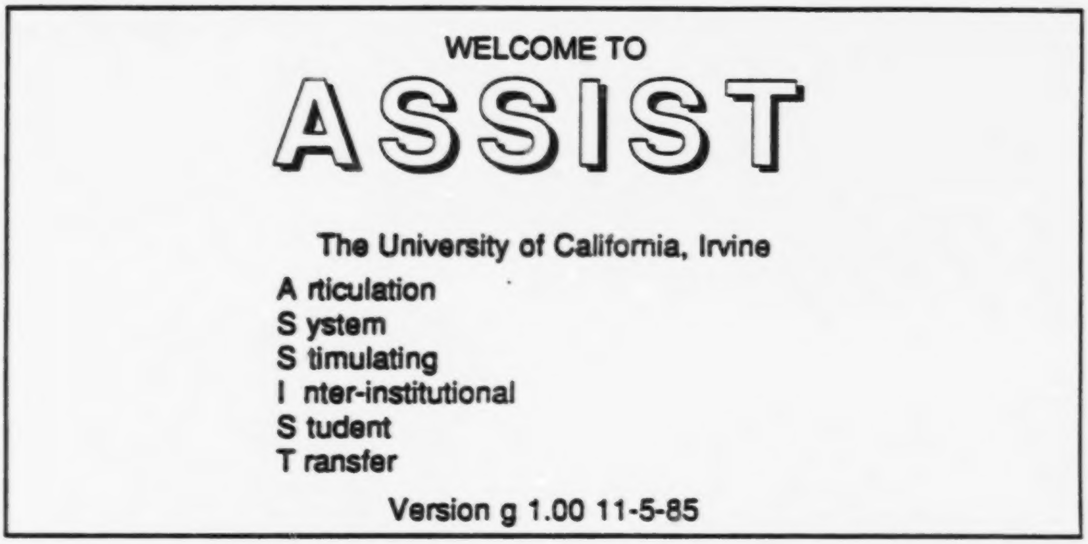
NOTE: On some keyboards, the key will be labeled ENTER. On others, it may be indicated only by the symbol ↵ . All references to the ENTER key in this manual apply to either labeling.

I. BEGINNING A UCI/ASSIST SESSION

Getting Started:

Turn on the power switches of
(1) the IBM AT or PC,
(2) the video monitor, and
(3) the printer.

Once the power is on, and the system is warmed up, you will see this screen:



WELCOME TO

ASSIST

The University of California, Irvine

A rticulation
S ystem
S timulating
I nter-institutional
S tudent
T ransfer

Version g 1.00 11-5-85

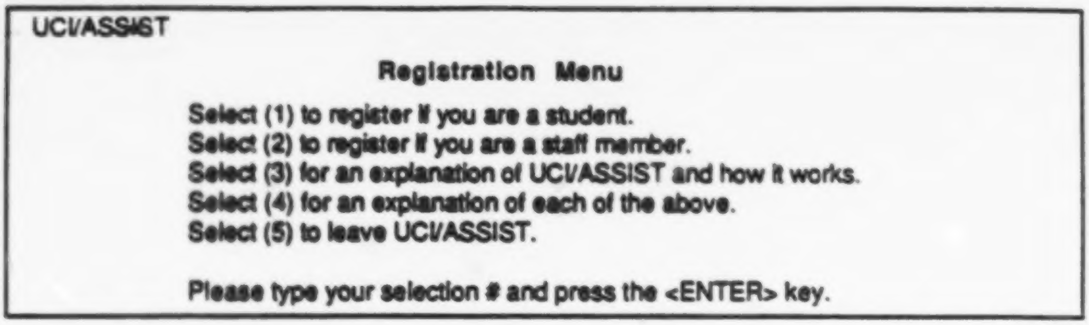
- Type "A" to advance to the next screen and press ENTER, or
- Type "L" to leave the screen and press ENTER, or
- Type "P" to print the screen and press ENTER.

If the power is already on and some other screen is displayed, return to the WELCOME screen by:

- selecting the LEAVE UCI/ASSIST option or
- selecting the END THIS SESSION option on any menu, or
- typing "END" if it is a screen without a menu.

Registering:

After leaving the WELCOME screen you are presented with the REGISTRATION MENU.



UCI/ASSIST

Registration Menu

Select (1) to register if you are a student.
Select (2) to register if you are a staff member.
Select (3) for an explanation of UCI/ASSIST and how it works.
Select (4) for an explanation of each of the above.
Select (5) to leave UCI/ASSIST.

Please type your selection # and press the <ENTER> key.

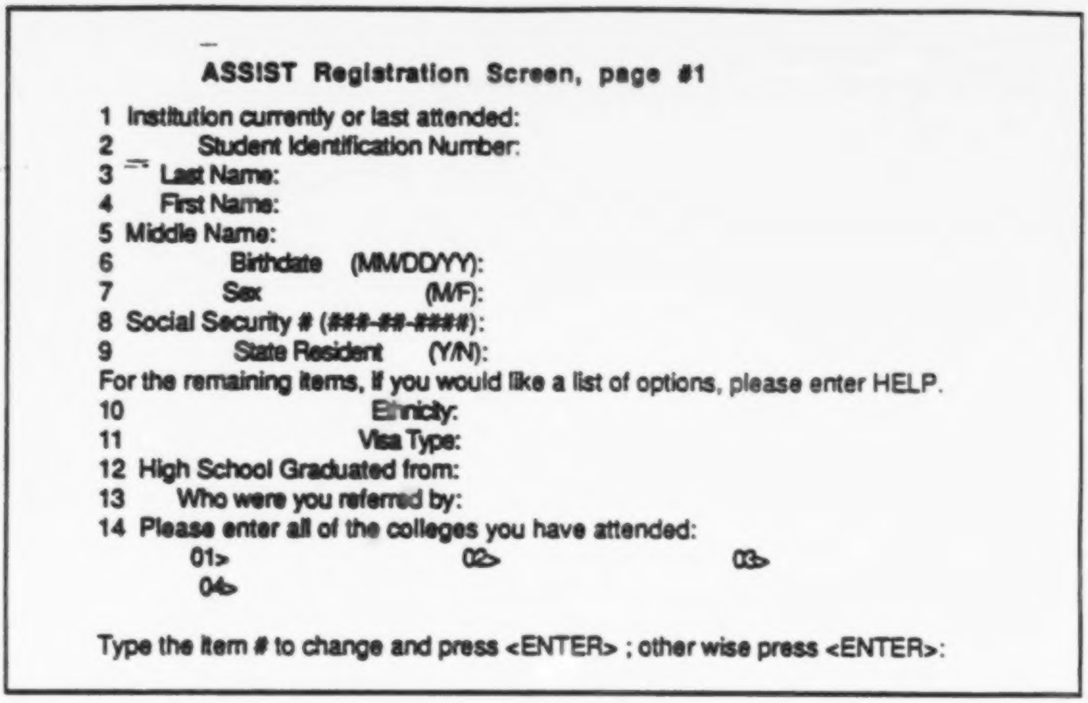
Type the appropriate number to move to the next screen and press ENTER.

NOTE: If you select (5) to exit, you will be asked for a password which allows authorized users to leave ASSIST. If you are not authorized to use the computer for programs other than ASSIST, press ENTER to return to the WELCOME screen.

If you are a student, and have chosen (1) from the REGISTRATION MENU, the first REGISTRATION screen will appear. This screen gives you a brief explanation of the information needed for registration, and what that information will be used for.

- Type "A" to advance to the next screen and press ENTER, or
- Type "L" to leave and press ENTER, or
- Type "P" to print the screen and press ENTER.

The next screen asks you to actually enter you personal information:



```
            ASSIST Registration Screen, page #1
1  Institution currently or last attended:
2          Student Identification Number:
3     Last Name:
4     First Name:
5  Middle Name:
6              Birthdate    (MM/DD/YY):
7             Sex                (M/F):
8  Social Security # (###-##-####):
9              State Resident      (Y/N):
For the remaining items, if you would like a list of options, please enter HELP.
10                             Ethnicity:
11                            Visa Type:
12  High School Graduated from:
13      Who were you referred by:
14  Please enter all of the colleges you have attended:
        01>                   02>                    03>
         04>

Type the item # to change and press <ENTER> ; other wise press <ENTER>:
```

•To register for the first time:

1.) type the information requested at the bottom of the screen, and
2.) press ENTER after typing each item.

ASSIST will take you through each field on the screen automatically.

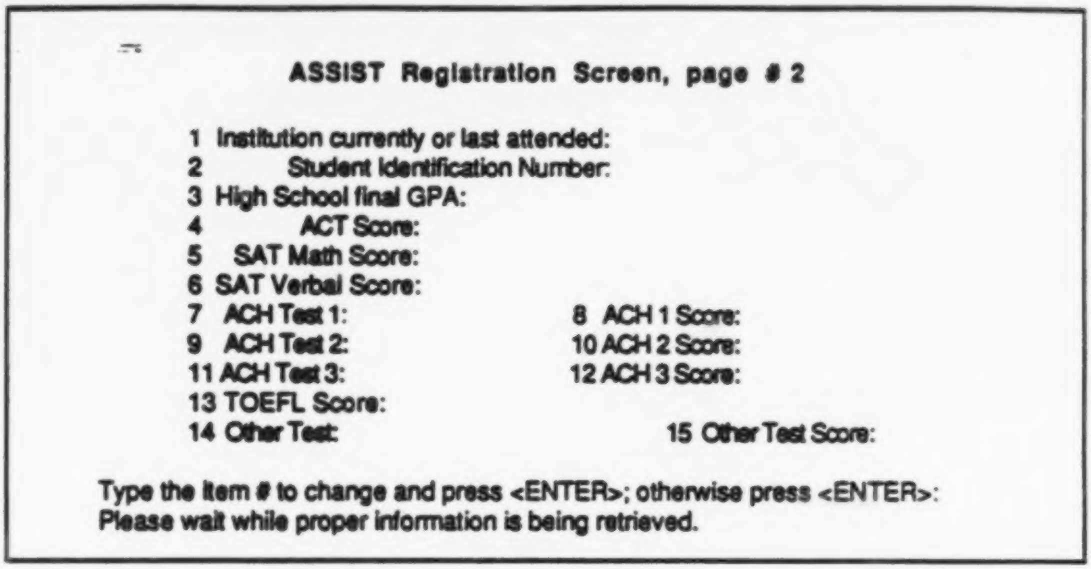
•If you've already entered your registration information, and you do not wish to change it, press ENTER for the next screen.

•To change any item:

1.) type the number of the item you wish to change and press ENTER, then
2.) type the new information and press ENTER, then
3.) press ENTER again to continue to the next registration screen.

NOTE: Personal information in the system is protected from unauthorized viewing by requiring a password each time it is accessed. The user selects a password at the initial session, then enters it at each subsequent registration. Without it, personal information cannot viewed.

After you have provided or verified all information requested on the first REGISTRATION screen, a second REGISTRATION screen will appear.



```
                ASSIST Registration Screen, page # 2

      1 Institution currently or last attended:
      2         Student Identification Number:
      3 High School final GPA:
      4          ACT Score:
      5   SAT Math Score:
      6 SAT Verbal Score:
      7  ACH Test 1:                    8 ACH 1 Score:
      9  ACH Test 2:                    10 ACH 2 Score:
      11 ACH Test 3:                    12 ACH 3 Score:
      13 TOEFL Score:
      14 Other Test:                           15 Other Test Score:

  Type the Item # to change and press <ENTER>; otherwise press <ENTER>:
  Please wait while proper information is being retrieved.
```

- If you don't wish to enter the information requested on this screen, press ENTER to continue to the FUNCTIONS MENU.

- If your information has been entered, and you do not wish to change it, press ENTER to continue to the FUNCTIONS MENU.

- To enter or change any item on this screen:

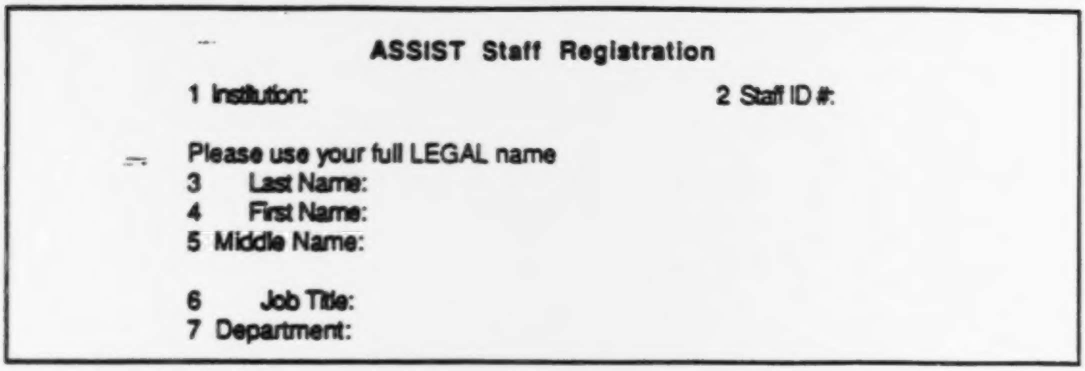
  1.) type the number of the item you wish to enter or change and press ENTER, then

  2.) type the new information and press ENTER, then

  3.) press ENTER again to continue to the FUNCTIONS MENU.

NOTE: You can return to the REGISTRATION MENU any time during the registration process by typing "END" and pressing ENTER.

If you are a staff member, and have chosen (2) from the REGISTRATION MENU, the STAFF REGISTRATION screen will appear.



ASSIST Staff Registration

1 Institution: 2 Staff ID #:

Please use your full LEGAL name
3 Last Name:
4 First Name:
5 Middle Name:

6 Job Title:
7 Department:

- To register for the first time:

  1.) type the information requested for each item and press ENTER, then

  2.) press ENTER again to continue to the FUNCTIONS MENU.

ASSIST will take you through each field on the screen automatically.

- If your information has been entered and you don't wish to change it:

  1.) type in the abbreviation of the institution you work for and press ENTER, then

  2.) type in your staff ID # and press ENTER, then

  3.) press ENTER again to continue to the FUNCTIONS MENU.

- To change any item:

  1.) type in the abbreviation of the institution you work for and press ENTER, then

  2.) type in your staff ID # and press ENTER, then

  3.) type the number of the item you wish to change and press ENTER, then

  4.) type the new information and press ENTER, then

  5.) press ENTER again to continue to the FUNCTIONS MENU.

NOTE: You can return to the REGISTRATION MENU any time during the registration process by typing "END" and pressing ENTER.

II. SELECTING A FUNCTION

The FUNCTIONS MENU is the "traffic controller" of UCI/ASSIST. From it the user selects which of the system's features he or she wants to utilize.

```
UCI/ASSIST

    Functions Menu:  the three major functions of UCI/ASSIST

        Select (1) for general information on campuses.
        Select (2) for progress check.
        Select (3) for course to course articulation.
        Select (4) for an explanation of each of the above.
        Select (5) to end this session of UCI/ASSIST.

        Please type your selection # and press the <ENTER> key.
```

As usual, this menu includes options for help (4) and to exit (5). After using any of the options, the user is automatically returned to the FUNCTIONS MENU.

UCI/ASSIST offers the user three primary transfer planning functions:

(1) Accessing information about an institution, its programs and services.

(2) Assessing and planning progress toward a specific degree objective at a given transfer (receiving) institution -- called a **"Progress Check."**

(3) Finding specific courses at one institution which transfer for credit and are acceptable in lieu of courses or requirements at another -- called **"Single Course Articulation."**

To get information about a participating institution:

Select (1) on the FUNCTIONS MENU and press ENTER. A list of ASSIST-participating colleges and universities will be displayed. Type the number of the campus you want to see information for and press ENTER. The SELECTED CAMPUS INFORMATION MENU for that institution will appear.

```
UCI/ASSIST                      Selected Campus Information

               Select (1) for information about the campus and its services.
               Select (2) for information on Degrees and programs of study.
               Select (3) for transfer information.
               Select (4) for current calendar information.
               Select (5) for an explanation of each of the above.
               Select (6) to return to the Functions Menu.
               Select (7) to end this session of UCI/ASSIST.

               Please type your selection # and press the <ENTER> key.
```

Again, this menu provides options for help (5) and to exit (7), as well as to return directly to the FUNCTIONS MENU (6).

Options (1) through (4) will call up lists of textual documents available for viewing within the areas of information shown on the SELECTED CAMPUS INFORMATION MENU. Choose the document you wish to view by typing the item number and pressing ENTER.

- Type "A" and press ENTER to continue through the pages of the text and to return to the list of documents after viewing the last page of text.
- Type "B" and press ENTER if you wish to go back to a previous page of the text.
- Type "P" and press ENTER if you wish to print any page of the text you are viewing.

Type "END" to return to the SELECTED CAMPUS INFORMATION MENU from the list of textual documents.

NOTE: Type "END" to return to the list of textual documents from any page of the text you are viewing.

To perform a Progress Check:

This function compares courses already taken (or courses you plan to take) with the general education and major requirements of a receiving institution whose curriculum is articulated with that of the sending institution(s) which you have attended. Since there is too much information to display on the screen, the result is a document printed at the work station. This printout will tell you:

- which requirements have been met by which transferring courses,
- which requirements remain to be satisfied,
- how remaining requirements may yet be satisfied prior to transfer,
- which courses transfer with credit toward the degree, but do not meet specific requirements,
- which courses do not transfer to the institution in question,
- estimated transferable units, and
- estimated transferable GPA.

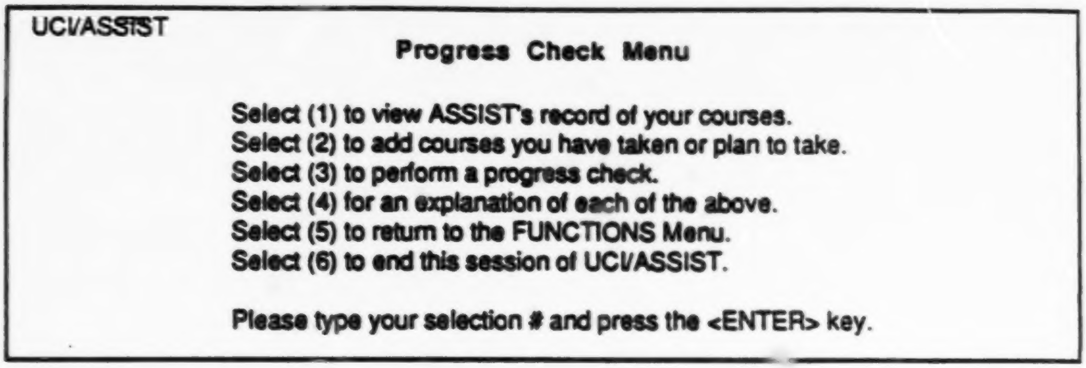
The UCI/ASSIST Academic Record

Obviously, it is essential that UCI/ASSIST work with the prospective transfer student's entire academic history, the same as any receiving institution would. The system can acquire this transcript information from two sources:

(1) The user may type in the requested detail on course titles and numbers, units, terms, institutions, and grades received. This method has the obvious shortcomings of any self-reports. It must be stressed that the intended use of UCI/ASSIST is as a planning tool: It is not an official record or a binding contract, unless individual participating institutions elect to treat it as such.

(2) A UCI/ASSIST site may develop the computer capability to interface the official academic record directly with UCI/ASSIST, thus improving reliability and eliminating the need for key entry. However, because receiving institutions later may invoke a variety of regulations on repeated courses, limitations of credit in certain subjects, and sequencing of courses, the planning process should still be regarded as unofficial. Because electronic interface would involve procedures unique to the sending institution, this manual does not attempt to address them.

Select (2) from the FUNCTIONS MENU and press ENTER to call up the PROGRESS CHECK MENU.



UCI/ASSIST

Progress Check Menu

Select (1) to view ASSIST's record of your courses.
Select (2) to add courses you have taken or plan to take.
Select (3) to perform a progress check.
Select (4) for an explanation of each of the above.
Select (5) to return to the FUNCTIONS Menu.
Select (6) to end this session of UCI/ASSIST.

Please type your selection # and press the <ENTER> key.

Again, this menu provides options for help (4) and to exit (6), as well as to return directly to the FUNCTIONS MENU (5).

In order to perform a Progress Check, the user needs to:

- check the list of courses which have been entered in UCI/ASSIST (if any),
- enter or change details pertaining to courses already taken or planned,
- then actually perform a progress check.

•To verify courses already recorded by UCI/ASSIST:

(1) Select (1) from the PROGRESS CHECK MENU and press ENTER.

(2) The system will then ask you if you would like to print the list of courses. Type "Y" for yes or "N" for no and press ENTER.

(3) The system will then show you the list of courses on the screen.

(4) Press ENTER to return to the PROGRESS CHECK MENU.

NOTE: If you are a staff member, the system will ask you to identify the student and the institution attended by the student as follows:

```
You must specify a student to list transcript data for.
Enter the abbreviation for the institution:
Enter the student ID#:
```

•To add or change courses:

(1) Select (2) from the PROGRESS CHECK MENU and press ENTER.

(2) The system will retrieve any courses previously entered and display them on the screen.

(3) Press ENTER to continue to the COURSE ENTRY screen.

```
UCI/ASSIST
                    Adding or Modifying Courses in ASSIST

                    1                 Institution:
                    2  Term taken or planned:
                    3                       Course:
                    4                        Grade:
```

(a) Each screen accomodates one course. Type the information requested at the blinking prompt and press ENTER for each item.

(b) Press ENTER again after entering all the information requested on the screen and/or changing any item to continue to another blank entry screen.

(c) Type "END" and press ENTER to return to the PROGRESS CHECK MENU.

NOTE: The system will default for the "institution" and "term taken or planned" fields once you've entered your first course. To overlay that default, type the new information and press ENTER instead of simply pressing ENTER.

NOTE: If you are a staff member, the system will ask you to identify the student and the institution attended by the student as follows:

```
You must specify a student to list transcript data for.
Enter the abbreviation for the institution:
Enter the student ID#:
```

•To perform the Progress Check:

(1) Select (3) from the PROGRESS CHECK MENU and press ENTER.

(2) Enter the abbreviation of the institution for which you wish to perform a progress check and press ENTER. If the institution you type in is a UCI/ASSIST participant, a list of majors available at that institution will be shown. If the institution chosen is not a participant, the system will tell you and will allow you to continue by pressing ENTER.

(3) Once you have a list of available majors on the screen, type the item number corresponding to any major you are considering and press ENTER. The system will then tell you to stand by and that the progress check is underway. The results will not appear on the screen, but will print out on the printer located at the UCI/ASSIST work station.

==

NOTE: If you are a staff member, the system will ask you to identify the student and the institution attended by the student as follows:

```
Please specify a student for whom to perform a progress check.
Enter the institution (e.g. UCI) the student attended:
Enter the student ID # or last name:
```

==

(4) The system will return to the PROGRESS CHECK MENU after printing the progress check.

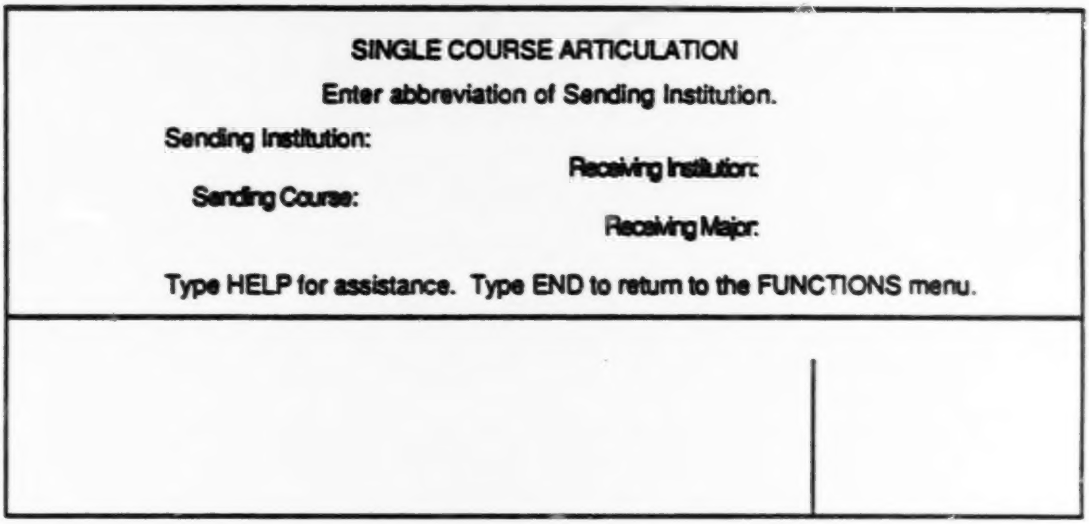
•Select option (5) and press ENTER to return to the FUNCTIONS MENU.

•Select option (6) and press ENTER to end this session of UCI/ASSIST and the system will return you to the WELCOME screen.

To articulate single courses:

- Select (3) from the FUNCTIONS MENU and press ENTER. The following SINGLE COURSE ARTICULATION screen allows you to equate courses at a sending institution and at a receiving institution by entering respectively:

  (1) the college from which you plan to transfer a course (Sending Institution),
  (2) the course you have taken or plan to take, and
  (3) the college or university to which you are considering transferring the course (Receiving Institution).



SINGLE COURSE ARTICULATION

Enter abbreviation of Sending Institution.

Sending Institution:

Receiving Institution:

Sending Course:

Receiving Major:

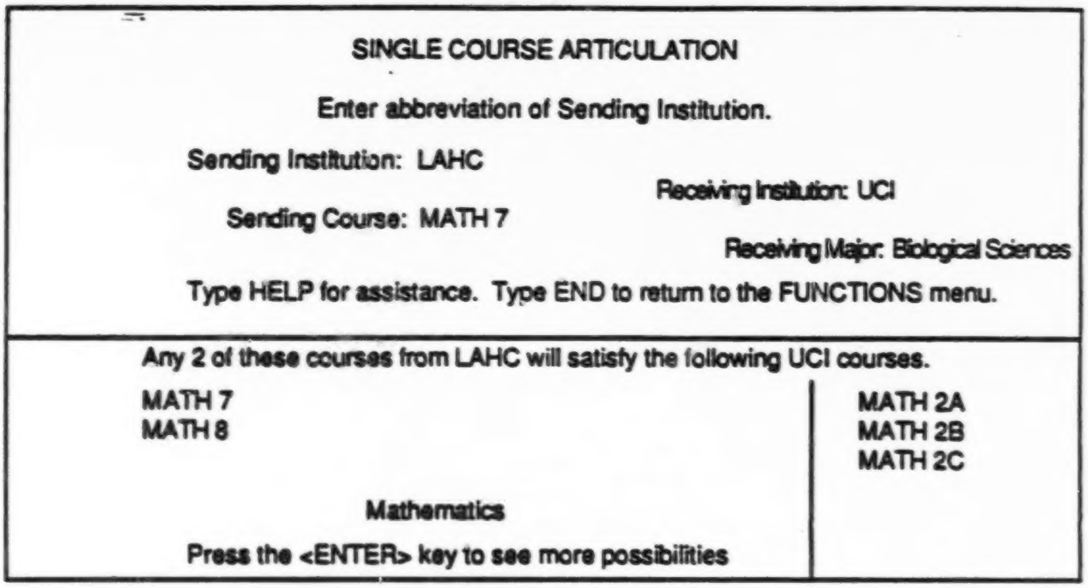
Type HELP for assistance. Type END to return to the FUNCTIONS menu.

Since courses articulate in different ways depending upon the prospective major, you are asked to enter a "?" for a list of majors or degree areas which would include the course you're interested in as an option for satisfying a requirement at the receiving institution.

If, for example, you have taken Math 7 at Los Angeles Harbor College, and want to know how it articulates for the Biological Sciences major at UC Irvine, you would create the following screen:

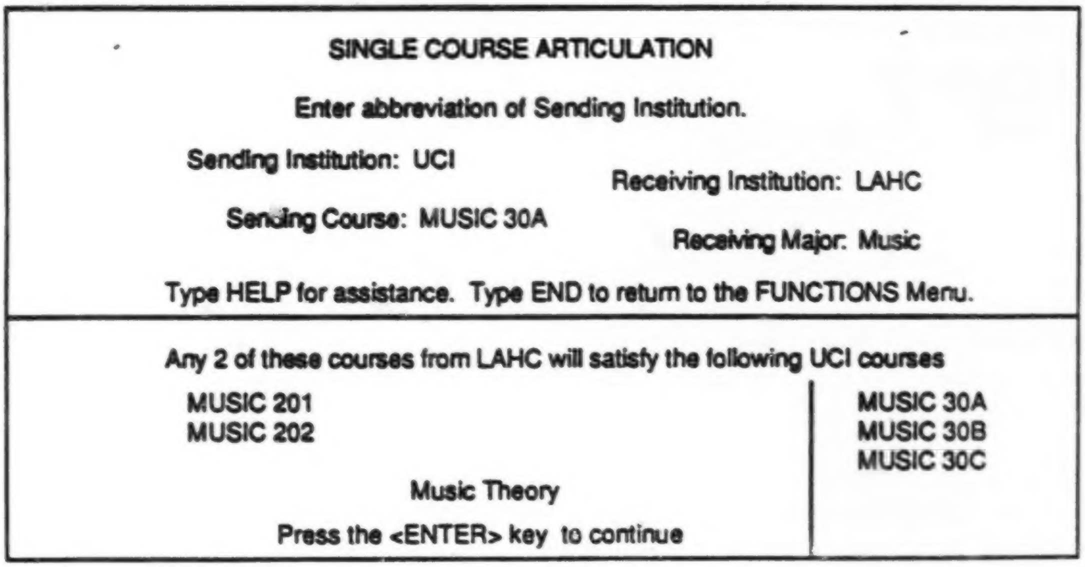
1.) Type in the abbreviation of the college from which the course would transfer ("LAHC").
2.) Type in the course for which you want to find the equivalent at the receiving institution ("Math 7").
3.) Type in the abbreviation of the institution to which you are considering transfer ("UCI").
4.) Type a "?" for a list of majors available at the receiving institution which would include Math 7 as an option for satisfying a requirement.
5.) Type in the number corresponding to the major you selected ("Biological Sciences").

The lower section of the screen will display the articulation. In this case, the LAHC Math 7-8 sequence would satisfy UCI Math 2A-B-C. (Because of the difficulty in articulating quarter courses with semester courses, the two institutions have chosen to articulate sequences rather than individual courses.)



```
                    SINGLE COURSE ARTICULATION

              Enter abbreviation of Sending Institution.

        Sending Institution:  LAHC
                                         Receiving Institution: UCI
          Sending Course:  MATH 7
                                     Receiving Major: Biological Sciences

   Type HELP for assistance.  Type END to return to the FUNCTIONS menu.
--------------------------------------------------------------------------
   Any 2 of these courses from LAHC will satisfy the following UCI courses.
   MATH 7                                           |  MATH 2A
   MATH 8                                           |  MATH 2B
                                                    |  MATH 2C
                        Mathematics                 |
       Press the <ENTER> key to see more possibilities |
```

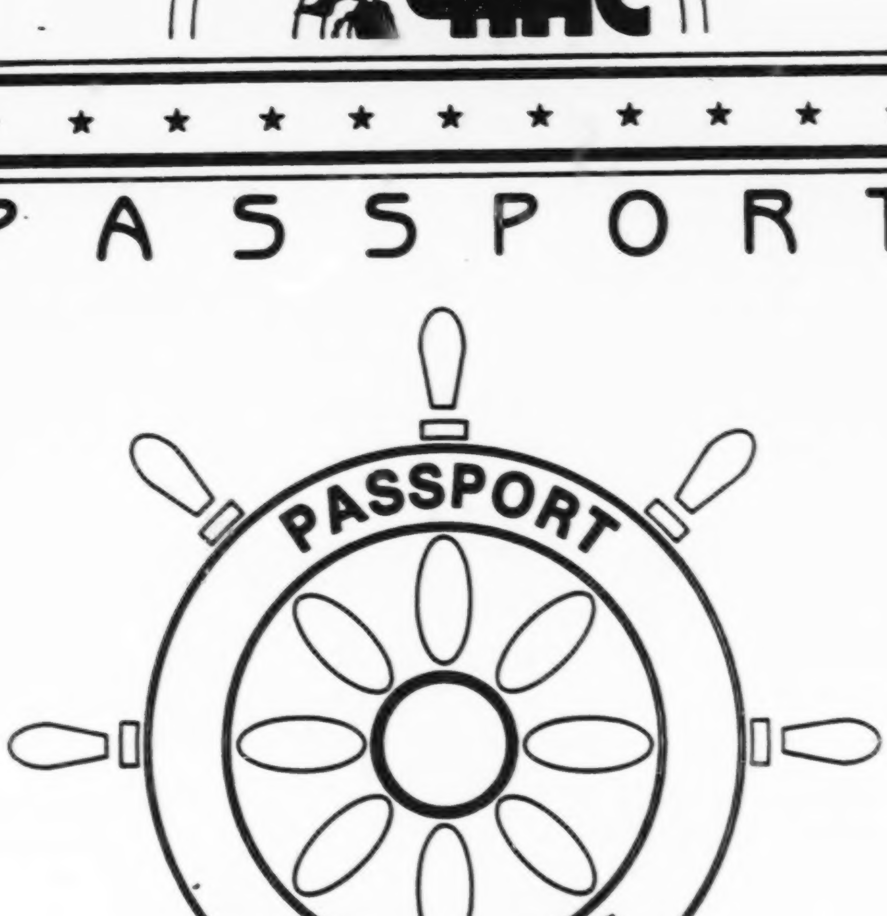
Note that this function of UCI/ASSIST can work in reverse, as well. That is, if the course or requirement at the receiving institution is known, and you want to find the sending institution course which articulates with it, simply reverse the roles of the campuses. For example, if you know that the UCI major in Music has a requirement 30A-B-C, and you want to know which LAHC courses satisfy it, UCI is treated as the sending institution and LAHC as the receiving institution. The resulting screen would look like this:



```
                    SINGLE COURSE ARTICULATION

              Enter abbreviation of Sending Institution.

        Sending Institution:  UCI
                                    Receiving Institution:  LAHC
          Sending Course:  MUSIC 30A
                                        Receiving Major:  Music

   Type HELP for assistance.  Type END to return to the FUNCTIONS Menu.
--------------------------------------------------------------------------
     Any 2 of these courses from LAHC will satisfy the following UCI courses
     MUSIC 201                                      |  MUSIC 30A
     MUSIC 202                                      |  MUSIC 30B
                                                    |  MUSIC 30C
                        Music Theory                |
             Press the <ENTER> key  to continue     |
```

LAHC

PASSPORT


PASSPORT
DIRECTORY

TO EXCELLENCE

PASSPORT DIRECTORY

A DIRECTORY OF

OUTSTANDING LOS ANGELES HARBOR COLLEGE SOPHOMORES

FROM MINORITY GROUPS WHO ARE UNDERREPRESENTED

IN FOUR YEAR COLLEGES AND UNIVERSITIES IN CALIFORNIA

FALL, 1985

Del M. Anderson, Dean of Students
L.A. Harbor College
Project Director

LOS ANGELES COMMUNITY COLLEGE DISTRICT
617 West Seventh Street
Los Angeles, California 90017
213-628-7788

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    Veterans Affairs
Jack S. Radabaugh, Ph.D., Assistant Dean, Admissions & Records
Michael Gegna, Assistant Dean Student Activities

FOREWARD

James L. Heinselman
President

"Los Angeles Harbor College is proud to publish the first annual Directory of Outstanding Sophomores from Underrepresented Minority Students at our college. We invite all two and four year colleges to join with us in the next two years as we expand the Directory to include students from all community in the Los Angeles area."

"The Academic Senate of Harbor College is pleased to participate in the production of the PASSPORT DIRECTORY. The Directory represents a committment on the part of our college family to assist in the identification and academic developement of minority students who are eligible to transfer to four year colleges."

Tom Bottone
Senate President

Del M. Anderson
Project Director

"The Community Colleges represent the only source for raising significantly the number of underrepresented students at the four year colleges. We have an obligation to act assertively in the identification of prospective transfer students and to work with our colleagues in the four year colleges to increase the rate of transfer of minority students."

ACKNOWLEDGEMENTS

Los Angeles Harbor College expresses appreciation to the following organizations and individuals for financial support (or linkages to financial support) to develop the Harbor College Passport Directory in 1985 and to expand the Passport Directory to include other community colleges in 1986 and 1987.

Ford Foundation Urban Transfer Project
Ms. Alison Bernstein, Program Officer

Western Interstate Commission on Higher Education (WICHE)
Dr. Martha Romero

California Postsecondary Education Commission
Dr. Dorothy Knoell

The College Board
Mr. Roy Lucero

Graphics
Clarence Scott

Word Processing
Madeleine Scott

THE PASSPORT DIRECTORY

Background. The **PASSPORT DIRECTORY** was developed as a tool to increase the rate of transfer of under-represented minority students from community colleges to four year colleges and universities in California and to provide a vehicle by which community colleges can assist four year colleges to meet their affirmative action objectives. The Directory was developed on two premises: (1) that minority students will continue to be underrepresented in four year colleges unless the transfer rate of community college students increases dramatically and (2) activities that provide for systematic early identification, monitoring of progress, follow-up and support represent effective methods to increase the transfer rate. The ethnicity of students is self-reported and Harbor College makes no guarantee of authenticity of ethnic status. Please see Appendix A for an abstract of the project.

Uses of the Directory. The Directory contains student-specific information on 287 student who are interested in transfer and who are making excellent to satisfactory progress toward transfer. Data include student name, address, phone number, social security number, grade point average, units completed and major. (See Appendix B for key to major code.) The Directory will be available in spiral bound form and floppy disks compatible with IBM microcomputers. The Directory will be piloted with selected four year colleges who agree to participate with the Harbor College Ford Foundation Urban Transfer Project in identifying prospective transfer students, monitoring their progress and providing them with mutually agreed upon services prior to, during and after transfer. Please see Appendix C for a sample of activities the four year colleges might be asked to provide. The President of each participating four year college will designate a staff member to be responsible for implementing the agreement with the project.

Beginning in Fall 1986, the Directory will be piloted at an additional 14 community colleges in the Los Angeles area. See program abstract in Appendix A for 1986 participants.

Privacy. The Directory contains information that is covered by privacy laws. Each candidate has signed a waiver authorizing the Dean of Students of Harbor College to release the contents of the Directory to four year colleges. The four year colleges may not release the information to a third party without written consent of the student. When no longer needed, the Directory must be destroyed in accordance with the privacy laws. Harbor College, at its discretion, may release the Directory to selected institutions for the purpose of conducting research. Please see Appendix D for the provisions of the privacy laws.

OUTSTANDING CATEGORY

PASSPORT DIRECTORY

CRITERIA:	Completion of 25 or more units with a grade point average of 3.0 or higher Enrolled at Harbor College in Fall 1985 No earned degrees Citizen of the United States
POOL OF CANDIDATES:	A total of 126 students met the criteria to be listed in the Directory after completion of courses in Spring, 1985. Of this number 88 (69%) gave written authorization to have their names listed in the Directory.

HONORABLE MENTION CATEGORY

PASSPORT DIRECTORY

CRITERIA: Completion of 25 or more units with a grade point average between 2.5 and 2.9

Enrolled at Harbor College in Fall 1985

No earned degrees

Citizen of the United States

POOL OF CANDIDATES: A total of 176 students met the criteria to be listed in the **PASSPORT DIRECTORY** after completion of courses in Spring, 1985. Of this number 108 (61%) gave written authorization to have their names listed in the Directory.

MEETING TRANSFER REQUIREMENTS

PASSPORT DIRECTORY

CRITERIA:	Completion of 25 or more units with a grade point average between 2.0 and 2.4 Enrolled at Harbor College in Fall 1985 No earned degrees Citizen of the United States
POOL OF CANDIDATES:	A total of 207 students met the criteria to be listed in the Directory after completion of courses in Spring, 1985. Of this number 91 (44%) gave written authorization to have their names listed in the Directory.

Appendix A

ABSTRACT

Los Angeles Harbor College will develop, publish and distribute to four year colleges and universities in California on an annual basis, a **DIRECTORY OF OUTSTANDING COMMUNITY COLLEGE SOPHOMORES FROM UNDERREPRESENTED MINORITIES IN CALIFORNIA** (hereinafter referred to as the Directory or **PASSPORT DIRECTORY**.) The community colleges represent the only source for raising significantly the number of underrepresented students at four year colleges in California. The **PASSPORT DIRECTORY** will provide an opportunity for both two and four year colleges to meet their student affirmative action objectives. The project will work closely with the systemwide offices of the California Community Colleges, the University of California, the California State University, as well as individual four year colleges, community colleges, and postsecondary institutions such as the California Post-Secondary Education Commission for effective use of the **PASSPORT DIRECTORY** as a recruitment tool for students who are near completion of their community college studies.

The project has been developed in four phases to assure that it can advance with procurement of modest grants from different sources:

Phase I	publication of a **PASSPORT DIRECTORY** of students from Harbor College; funded by the Western Interstate Commission on Higher Education (WICHE) through a FIPSE grant to improve transfer rate of minority students; publication date December 15, 1985.
Phase II	publication of a **PASSPORT DIRECTORY** of students from the 14 community colleges in the urban Los Angeles area*; funded by the Ford Foundation Urban Transfer project and a mini grant from the College Board; publication date November 1, 1986.
Phase III	publication of a **PASSPORT DIRECTORY** of students from 18 community colleges with 30% or higher of underrepresented minority students; funded by the Ford Foundation Urban Transfer Project; publication date November 1, 1987.
Phase IV	publication of a **PASSPORT DIRECTORY** of students from the remaining 73 community colleges in California; this phase is unfunded; no publication date has been set.

*L.A. Harbor, L.A. City, East L.A., West L.A., L.A. Trade Technical, L.A. Southwest, L.A. Valley, L.A. Mission, L.A. Pierce, Pasadena, Santa Monica, El Camino, Compton and Long Beach

Candidates for the Directory will meet the following criteria:

a. completion of 25 or more units of college work by the end of the spring semester.
b. cumulative grade-point average as follows:

    Outstanding - 3.0 or higher
    Honorable Mention - 2.5 to 2.9
    Meeting Transfer Requirements - 2.0 to 2.4

c. Black American, Hispanic American, American Indian or any group designated underrepresented by the State Chancellor's Office
d. United States citizens.
e. no earned degrees
f. currently enrolled in a community college
g. waived their right to privacy

The **PASSPORT DIRECTORY** will include the candidate's name, address, phone number, major, grade point average and name of community college of attendance. The project will play a key role in development of techniques to assure that all students who are eligible and wish to be included in the directory will be listed and in working with the four year colleges to assure that the directory is used appropriately as a recruitment device.

Appendix B

LOS ANGELES HARBOR COLLEGE

MAJOR/PROGRAM CODES

Baccalaureate (Four Year) Degree

0502.00	Accounting
0101.00	Agriculture/Animal Sciences
0410.00	Anatomy/Physiology
2202.00	Anthropology
0200.00	Architecture
1002.00	Art - All options
1911.00	Astronomy
0401.00	Biology
0402.00	Botany
0704.10	Business - Data Processing
0501.00	Business - All other options
1905.00	Chemistry
1305.00	Child Development
0601.00	Communication Arts
1220.00	Communicative Disorders
0701.00	Computer Science
2105.00	Crimonology/Law Enforcement
1204.20	Dental Hygiene
1204.00	Dentistry (Pre-Dental)
1007.00	Drama
2204.00	Economics
0801.00	Education - All options
0901.00	Engineering - All options
1501.00	English
1300.00	Family & Consumer Studies - General
1306.00	Family & Consumer - Nutrition
1101.00	Foreign Language - All options
4930.00	General Education
2206.00	Geography
1914.00	Geology
0837.00	Health Education
2205.00	History
4903.00	Humanities
0839.00	Industrial Arts
0602.00	Journalism
1401.00	Law (Pre-law)
4901.00	Liberal Arts
1601.00	Librarianship
1501.00	Literature
1701.00	Mathematics
1206.00	Medicine (Pre-Med)
1913.00	Meteorlogy
1010.00	Motion Picture/Cinema
2202.00	Multi-Cultural (Ethnic) Studies - All options
1004.00	Music - All options
0115.10	Natural Resources Management (Fish, Game, Wildlife)
1203.01	Nursing, Professional
1208.00	Occupational Therapy
1919.00	Oceanography
1209.00	Optometry (Pre-Professional)
1211.00	Pharmacy (Pre-Professional)
1509.00	Philosophy
0835.00	Physical Education
1901.00	Physical Science
1212.00	Physical Therapy
1902.00	Physics
2207.00	Political Science
2001.00	Psychology
2102.00	Public Administration
2103.00	Recreation
1510.00	Religion/Religious Studies
2201.00	Social Science
2104.00	Social Welfare
2208.00	Sociology
1506.00	Speech Communication
1701.15	Statistics
0603.02	Telecommunication
0201.00	Urban Planning
1206.05	Veterinary Medicine (Pre-Vet)
0407.00	Zoology
000 00	Undecided

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LOS ANGELES HARBOR COLLEGE

MAJOR/PROGRAM CODES

Associate (Two Year) Degree

0502.00	Accounting
2105.00	Administration of Justice
0945.46	Air Conditioning & Refrigeration Technology
0201.00	Architecture Technology
0948.00	Automotive Technology
0501.00	Business Administration
0704.10	Business Data Processing
1305.10	Child Development
0701.10	Computer Technology
0953.50	Drafting Production Design
0935.00	Electromechanical Engineering Technology
0925.40	Electronic Engineering Technology
1303.13	Fashion Design
1303.20	Fashion Merchandising
2133.00	Fire Science
2107.00	Human Services
0203.00	Interior Design
4901.00	Liberal Arts (Non transfer)
0506.00	Management
0509.00	Marketing
0509.50	Merchandising
1203.10	Nursing, Professional (R.N.)
1203.20	Nursing, Vocational
0514.50	Office Administration, General
0514.10	Office Administration, Legal Office
0514.20	Office Administration, Medical Office
0514.70	Office Administration, Word Processing
1030.02	Printing Technology
0945.12	Solar Energy Technology
0506.30	Supervision
0003.00	Undecided

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SAMPLE ITEMS FOR AGREEMENTS WITH PARTICIPATING FOUR YEAR COLLEGES

General Agreements Covering All Participants

1: The objective of project activities is to increase the rate of transfer of underrepresented minority students from community colleges to four year colleges and universities.

2. Participants agree not to release student information to any third party without written permission from the student.

3. Recruitment activities will encourage students to complete their 56 transferrable units and/or obtain the Associate degree at the community college prior to transfer.

4. Participants agree to make direct contact with students within 90 days of receipt of the Directory.

5. Participants agree to recruit from all categories of students who meet their eligibility requirements and not just those with the the highest grade point averages. For example, UC campuses must recruit from both the Outstanding and Honorable Mention Categories. CSU Colleges must recruit from the Outstanding, Honorable Mention and Meeting Transfer Requirements categories.

6. Participants will identify students in such a manner that the project can evaluate the number of Directory students who transfer and monitor their progress.

Sample of Services which may be Negotiated by Participants and the Project

1. Letter of introduction to Directory students inviting them to consider transfer
2. Recognition of eligibiliy to transfer
3. Early notice of Financial Aid information
4. Designation and Notification of assignment of a Transfer Advisor
5. Calendar of Campus Events
6. Copy of Campus Newspaper
7. Distributing Lists of Directory Students by major to Department Chairs or Division Dean
8. Free tickets to selected campus events
9. Direct contact with sample of students regarding specific events on campus.

10. Early evaluation of transcripts
11. Group and/or Individual Transfer Advising
12. Transfer workshops
13. Guest Lectures by four year college faculty
14. Overnight or weekend campus visits
15. Campus Tours
16. Invitations to selected campus events
17. Assignment of Faculty Mentor
18. Appointment of Transfer Advisor
19. Appointment of Project Liaison

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